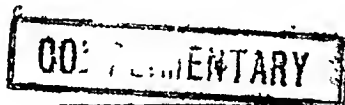


REPORT
ON THE
QUESTION OF THE ASSESSMENT
OF
LAND AND WATER REVENUE
IN AJMER-MERWARA

WITH
PROPOSED REVENUE RATES FOR
DISTRICT AJMER.

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AJMER:
SCOTTISH MISSION INDUSTRIES Co., LTD.

1908.

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FROM

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AJMER-MERWARA,
AJMER.

TO

THE COMMISSIONER,
AJMER-MERWARA,
AJMER.

Dated Ajmer, the 22nd August 1908.

SIR,—

With reference to the Hon'ble the Chief Commissioner's letter No. 116³⁴⁸, dated the 6th April 1907, I have the honour to report as follows on the matters dealt with in paragraphs 5, 6, 7, and 8 of the letter of the Government of India No. 417-42-2, dated the 26th February 1907.

2. The general portions of this report might have been submitted over a couple of months ago, as the main principles of its proposals are those that were discussed with, and in outline agreed upon, I think, by the Hon'ble the Chief Commissioner in February, when he was in camp and inspected certain tanks and villages with me for a week then. It seemed desirable, however, to present with this report the rates for the re-assessment. With these the system of assessment proposed could be illustrated by their probable effect upon circles and individual villages, and a number of detailed matters more definitely worked out.

Unfortunately the materials for working out the net assets and therefrom the rates did not exist ready to hand in the form in which they were required, and much tedious and detailed extraction work has had to be done, which has taken longer than was anticipated. Some further time also has had to be spent in reconciling, or discovering the cause of, certain discrepancies found to exist between those extracted figures and the total of the Milan Khasra statements, in order to check the figures from which the assets and rates were to be deduced and to get them as accurate as possible.

3. With regard to paragraph 5 of the Government of India's letter there is little to be said. Mr. LaTouche wrote at last
Soil classification. Settlement (para. 244 of his final report) :—

“No classification of soils is recognised in Ajmer-Merwara, and the people themselves know no other division of the land than that founded on its means of irrigation. They divide the soil into *chahi* . . . *talabi* . . . *abi* and *barani* or unirrigated land. . . .”

“It seemed worse than useless to attempt a classification of soils which was locally unknown, and which could not have been relied on for assessment purposes. . . .”

After having now inspected in detail all the villages of the Ajmer Tahsil, and of more than half of Beawar, and having toured extensively in the rest of Merwara, and discussed the subject many times with the villagers, I find that the above remarks are as true now, thirty-four years later, as they were then. There has been no change in this matter.

4. There are, of course, obvious differences of soils: clay, loam and sand exist, of varying grades. But it is equally a fact that the villagers here have no ideas about soils natural and artificial such as the Mainpuri cultivators, for instance, have, who themselves teach the Settlement Officer the whole jargon of their "soil" distinctions—Gauhan, Manjha, Barha, Dumat, Piliya, Bhur, Tarai, Matyar and the rest of it. The villagers of Ajmer-Merwara of course recognise differences in different fields or groups of fields, but they do not distinguish these differences by "soils," as that term is elsewhere understood in the expression "soil classification." With them the difference is always found on cross examination to resolve itself into one of productiveness. That field or group of fields or that portion of the village, or that village, is better than some other because the former will produce better out-turn or better crops than the latter. Examined further, this difference in productiveness again is found to depend on the factor of irrigation. Excellent crops will at times, if the rainfall is favourable, be grown without artificial irrigation, but the rainfall is very uncertain, and no trouble is taken with ordinary *barani* lands whose moisture is supplied only by rain. Where, however, lands are commanded by a source of water supply the cultivator, under the incentive of the latter, will go to work to "make" his field, and to these irrigated fields he will apply all, or practically all, his manure. He will not risk his manure on the uncertain unirrigable lands. Stocks of manure are not too plentiful—on the contrary they are in general not sufficient even for both his "tank" and "well" fields, and the manure goes by preference to the "well" fields, where for several reasons there is usually more conservation of material.

These well-irrigated or tank-irrigated lands, however, are to the villagers known simply, and sufficiently, as *chahi* or *talabi* lands. Of the rest of the cultivated area there are patches recognised by the name of *abi*, on which water collects, or is induced to collect and to sink into the soil; the remainder is all lumped together as *barani*. Any further nomenclature or distinction of soils, however, are unknown to the villagers; is, in fact, quite foreign to their ideas.

5. Nor is anything farther than the above simple classification really required for the purposes of assessment. It is true that even the *chahi* lands are not all of uniformly equal quality: that in one village the *chahi* soil is a good natural loam to start with, with a good, assured, water-supply and ample manuring, while in another village the natural soil to start with is a thin sand, the water supply intermittent only, and manure scanty: that in one village the *talabi* soil may be a good natural soil, well manured and carefully tilled by a set of industrious Jats, while in another village the tank water will be allowed by careless unenergetic cultivators to swirl negligently over insufficiently ploughed and unmanured sand: that the *abi* soil here may be only a few inches of soil over close-up rock, quickly drying and so shallow as hardly to give sufficient depth to the crop-roots, while there it may be a deep rich soil of great capability; and lastly, that the *barani* soil in some places is also a deep and naturally good loamy, level, soil, while elsewhere it is either a thin, shallow soil much intermixed with stones or pebbles, with the sub-surface rock close up, or broken up by small ravines, or, as in the Pushkar valley, sheer sand.

With an assessment based radically on soil classes alone, these patent observed differences would require sub-classes at least to be made of the four main soil distinctions, e.g., *chahi I*, *chahi II*, *talabi I*, *talabi II*, etc. I had indeed originally intended to form such soil sub-classes, but in the meantime my ideas changed, or grew, on the subject of the method of assessment, and on reconsideration I abandoned this tedious detailed sub-classification as unnecessary. In any case the demarcation of the limits of these sub-classes would be a very difficult and lengthy process. It is sufficient, I think, that during my detailed inspections I have recorded notes of the general soils contained in each village, and their

relative superiorities or inferiorities will be taken into account by me in gauging the relative capacity of each village and in fixing its assessment rates.

6. The question of depth of soil will also come into this account. This question forcibly strikes one who is traversing these villages with their masses of rock alternately emerging from and disappearing into the soil. Over a very large portion of the area of Ajmer-Merwara the surface soil is very shallow, lying over rock which is in general close up to the surface. The greater depths of soil are caused by the dips in this rock substratum. A certain depth of soil is needed for successful cultivation. A shallow soil can take up only a scanty store of water and manure: it dries quickly, gets rapidly hot under the powerful sun, and its crops wither at the approach of drought. A village in which the soil is mainly very shallow is thus likely to be, so far, of much lower capacity than one in which the soil is throughout, or largely, of a good depth. Observations have been taken here and there in each village of the depth of the surface soil down to the rock or down to three-feet depth. It is not claimed, of course, that by this process all the soils have been accurately measured in depth: such exact accuracy in detail was not necessary, as this soil depth was not to be the sole basis of the assessment, but one only among several other determining factors. All that has been aimed at is to obtain an approximately-correct general idea of the soil depths of a village, and to use this information as a further guide at the time of assessment.

7. The present conventional classification of the cultivated areas into *chahi*, *talabi*, *abi* and *barani* only is therefore being retained without addition. This is simple and is the cultivators' own classification. Certainly any other soil-classification with a nomenclature that is strange, and with connotations unknown to them, is not necessary for the work of assessment. Each field in each village will be classified in the new Settlement volume as belonging to one or other of the above four classes—which classification will be always on record—while instructions will be laid down that in each future year the field shall be recorded at each harvest according to its actual character at the time of cultivation.

8. I may as well refer at this place to the question of the classification of the villages into circles for assessment purposes. The admitted main purpose of the existing circle-classification—Mr. LaTouche's—is to block off the Ajmer district at any rate “into homogeneous circles of undoubted distinctive natural features,” and from this point of view I do not think that his circle-classification could be improved upon (except as regards the circles in which a few individual villages here and there and a clump of sandy villages round Srinagar might be placed). But as Mr. LaTouche himself remarks (para. 255 of his final report), “no classification except that of forming circles without regard to proximity in place can prevent inferior villages being classified with superior.” The villages of any one of the existing circles are naturally not all on the same level.

9. The essential object of circle-classification, apart from mere convenience in assessing, is to ensure that good villages are not assessed below, while poor villages are not assessed above, their real capacity. If the circle is large or comprised of a number of villages with widely-differing capacities, the difficulty is increased of avoiding over-assessment of the poorer villages.

10. There were two alternative plans possible for dealing with this problem: (a) to subdivide each of the present five topographical circles, where desirable, into two sub-circles of (i) the superior villages and (ii) the inferior villages, or (b) to make entirely new circles of all villages all over the tahsil irrespective of their position, dividing them, say, into (1)

good villages with relatively good conditions and a high average of out-turn, (2) bad villages with poor conditions and a low out-turn, and (3) intermediate villages.

11. Generally, however, the existing circles, with the exception of the Ramsar Circle are already small, in fact, too small for further division. There are only one hundred and thirty-nine *khalsa* villages in the Ajmer tahsil (apart from *khalsa* portions in three Jaghir villages), and fifty-seven of these are in the one circle of Ramsar. The remaining eighty-two are already divided into four circles, Ajmer circle containing fourteen only and Pushkar only nine.

12. And the second alternative also I have rejected after some consideration. In the first place, the tahsil would become a confused patchwork of circles, and it was a question also whether the benefit to be gained by this drastic break with the past would be worth the considerable disturbance and labour involved in re-shifting all the previous statistics for all villages. I think, however, that the interests both of the villages and the State can be duly safeguarded even with the present circles retained, by a judicious variation in each case of the average circle rates. In the United Provinces under the standing rules the Settlement Officer may vary his circle rates up to twenty-five per cent. either way to suit individual villages. This allows already for at least three sets of villages in each circle: *e.g.*, with an all-round average (*i.e.*, circle) rate of Rs. 3 we can assess, within such prescribed limits, one set of villages at Rs. 3-12-0, one at Rs. 3 and a third set at Rs. 2-4-0. The same principle can be applied in Ajmer-Merwara, and should cover all ordinary cases, exceptional cases being of course treated in an exceptional way.

Moreover, with a fluctuating system of assessment such as is now proposed in this report, by which the amount otherwise assessable at even the moderated rates, will be capable of further proportionate reduction if the outturn of the particular harvest falls below a standard average out turn calculated on the actual out-turns of its past records; the question of circle-classification is not so important as in an assessment in which the sole determining factor is the soil rate or crop rate. Here we have two elastic factors, the second one of which will tend effectively to correct any tendency to excess in the soil or crop rate.

13. From these considerations also I have ultimately let the old Ramsar Circle in Ajmer district stand as it is. Even to the most casual observer the clump of sandy villages round Beer and Srinagar, to the north and north-west of this circle, are different from, and inferior to, the usual loam and usar and better-irrigated villages of this circle. I had at one time contemplated making a separate circle at any rate of these, some thirteen in number, adding to them some four or five villages with similar sandy soils along the foot of the Rajgarh hills in the Rajgarh circle. For the reasons indicated above, however, this further sub-division has since seemed to me to be not essential for practical purposes. The necessary moderation in rating these villages will be adequately effected on the *data* otherwise available, without making a sixth circle and framing a sixth set of rates.

14. I have thus in the end retained Mr. LaTouche's circle-classification in tahsil Ajmer (Merwara will be separately reported upon later), unchanged with only one exception, which is, that I have moved the village Madarpur from Mr. LaTouche's Ajmer Circle into that of Gangwana, where it ought obviously more properly to be.

TALABI AND ABI SOILS.

15. In para. 7 (*i*) of their letter the Government of India, in referring to *talabi* and *abi* cultivation, which, they remark, is already to a large extent under fluctuating assessment, and might for the future be

placed entirely under this form of assessment, express the "hope that no difficulty will be found in arranging for an acreage assessment, harvest by harvest, on the area actually cultivated as *abi* or *talabi* in the harvest in question."

16. As at present maintained and assessed, the tanks of Ajmer-Merwara fall into four classes; viz:—

I. Crop Rate Tanks.

II. Variably Assessed Tanks.

III. Fixed Assessment Tanks, maintained by Government.

IV. Fixed Assessment Tanks, maintained by the village.

For ready reference I give the following figures relating to these several classes of tanks in the Khalsa areas:—

STATEMENT I.

Tahsil.		Class I Crop Rate.	Class II Variable.	Class III Fixed.	Class IV Fixed.	Total.
Ajmer.	Number of Tanks	12	53	44	50	159
	Area assessed Acres	7,418		1,845		9,263
	Land Revenue <i>plus</i> Water Revenue assessed	Rs. 29,710		Rs. 5,638		Rs. 35,348
Beawar.	Number of Tanks	12	21	134	65	232
	Area assessed acres	3,160		4,413		7,573
	Land Revenue <i>plus</i> Water Revenue assessed	Rs. 13,466		Rs. 11,907		Rs. 25,373
Todgarh.	Number of Tanks	22	9	69	52	152
	Area assessed acres	740		1,821		2,561
	Land Revenue <i>plus</i> Water Revenue assessed	Rs. 2,948		Rs. 7,313		Rs. 10,261
Total.	Number of Tanks	46	83	247	167	543
	Area assessed acres	11,318		8,079		19,397
	Land Revenue <i>plus</i> Water Revenue assessed	Rs. 46,124		Rs. 24,858		Rs. 70,982

The figures of the number of tanks are as at present, including new tanks built since last Settlement, but, as the Water Revenue varies from year to year on the first two classes, the figures given of areas and of the amount of Revenue assessed are the standard areas and revenue assessed by Mr. Whiteway (as given in paragraph 85 of his final Settlement Report).

17. The tanks of classes I and II, it will be seen, though numerically much fewer, viz., 129 as against 314 fixed tanks, are from the point of view of revenue, far more important; that is, of the total assessments

on lands irrigated from tanks some two-thirds are already on a fluctuating basis.

In Ajmer tahsil the third and fourth-class tanks are comparatively unimportant. In Merwara, on the other hand, their lands furnish the greater tank revenue. They are most numerous in Beawar tahsil, but they are also very numerous relatively to first and second class tanks in tahsil Todgarh, where also they furnish the bulk of the revenue.

18. Further analysis, however, shows that this revenue on fixed tanks comes practically all from the third-class tanks. Thus in Beawar, of the sixty-five fourth-class tanks listed, thirty-seven of them were not even assessed at last Settlement, that is, no direct irrigating water revenue was laid upon them, and on the remaining thirty the actual direct water revenue fixed, amounts, according to the figures furnished to me by the Tahsildar, to Rs. 48 only. The figures of the actual water revenue which may be credited to the fourth-class tanks in the other two tahsils are not on record, but the fact remains that in these two tahsils also the revenue on the third and fourth-class fixed tanks comes mainly, if not practically all, from the third-class tanks.

19. Of the "fixed" tanks, therefore, the third-class tanks are, from the revenue point of view, really the only important ones at present.

The reason is that these third-class tanks are what may be reasonably called "tanks." They are kept up by Government agency: their maintenance is not dependent on the spasmodic, half ineffective, and more often than not wholly wanting, efforts of large incohesive brotherhoods of indigent peasantry who have no surplus funds to spend on tank repairs.

20. The fourth-class are, on the other hand, now, the majority of them, the merest apologies for tanks; they are nearly all very small, and even in the most favourable years hold up very little water, or irrigate only small areas: while most of them are now in very bad repair and have ceased to be effective as tanks at all. The real revenue that could be derived from these tanks is, in their present condition, quite small.

21. Nevertheless, I think that both these third and fourth-class tanks should be put on an uniform fluctuating system. In the case of the third-class tanks no difficulty need be apprehended in meeting the Government of India's wishes in this respect, and in bringing their assessment into line with that proposed for the first and second-class tanks. The announcement of the decision to bring these third-class tanks under fluctuating assessment may at first cause here and there some slight grumbling on the part of those who do not at present desire a change from fixed to variable assessment: but the people would soon get used to the new system and settle down quietly to it when once they perceived that the object of the Government is not simply to extract a larger revenue from them, but that the scheme of assessment is devised also in the villagers' own interests, and—most important of all—if only they are fairly treated in the matter of the harvest estimates by the patwaris and subordinate revenue staff generally.

22. I have stood over many a "fixed" tank discussing the question of assessment with the villagers, and at present, it must be admitted, the more general feeling of these "fixed" assessees is in favour of a retention of these fixed assessments. This feeling is very largely a matter of keeping to what one is used to, the natural human feeling that is at first averse from change whatever be its ultimate merits.—

** * in erring reason's spite,
One truth is clear, whatever is, is right."

But the general attitude is a simple straightforward, if one-sided one. "Take (they say) an average of good and bad years and give us a fixed (pueea) assessment, and let the State succour us (do 'parwasti' to us, is

their phrase, which may be translated here, as 'remit' the assessment) in bad years: do not expose us to the liability of having our assessment dependent at every harvest on the goodwill of the patwaris and of the lower revenue staff."

23. The pivot for success of the working of a fluctuating harvest-to-harvest assessment is, of course, ultimately the character of the Khasra work of the patwari and of its checking: but if the system is safeguarded by adequate checks and supervision, and, as already remarked, the villagers of these fixed tanks are made to feel that they are being fairly treated in their assessments, their present fears should be in time removed—just as the villagers who have now grown accustomed to the variable system on second-class tanks now prefer that fluctuating system, on the whole, to a fixed system. And in any case the Government maintains the third-class tanks at its own expense, and is under no obligation to continue for ever any one particular method of collecting its fair portion of the produce of the lands irrigated from them.

24. The fourth-class tanks, however, require to be dealt with more cautiously. In the first place these tanks belong to the villagers, and the Government at the present has no direct concern with them. In the second place, the villagers have long been accustomed to a fixed assessment on them.

These two facts, even when coupled together, do not of themselves, of course, constitute any obligation, legal or moral, upon the Government never to change the method of assessment, any more than the fact that the village wells are owned by the villagers and that always hitherto the assessment thereon has been fixed, would be held to bar for ever a fluctuating assessment on the well lands.

Nevertheless, in many cases the sudden imposition without further action of a fluctuating system of assessment on these fourth-class tanks might cause some discontent, or give an opening to the villagers concerned to manufacture a grievance. These tanks, most of them at any rate, the villagers were induced to make, or to help to make, by Colonel Dixon; and in Merwara, at any rate, one is always being met with the remark by the villagers that when we, or our fathers, did this or that, or this or that event happened, Colonel Dixon promised us this or that. One never feels quite sure perhaps what Colonel Dixon did or did not promise: but there is no doubt that in many instances the villagers have the belief that they have now some sort of a right to a fixed assessment on their village tank.

25. As already remarked, however, a very large number of these fourth-class tanks are now in very bad repair, *vide* also the separate Note on these fourth-class tanks which is attached to this report as Appendix II. It is useless to expect that the villagers themselves will ever put these tanks into effective repair.

It is these facts, however, that afford the solution of the problem of how to deal with these fourth-class tanks in the matter of assessment.

In many cases the villagers themselves ask for Government to take over these tanks and keep them in repair. As I have heard them put it, in some instances: "We will give Government the tank if Government will put it into repair; this will be to the benefit of Government also, as we will pay the Government whatever water revenue on the tank it may then impose."

26. We have therefore something very tangible to offer to the villagers, in the case of these fourth-class tanks. On the general grounds stated in the Note forming Appendix II, I think that it is in any case desirable that the Government should put into repair and maintain these fourth-class tanks. We wish to change the system of assessment: the villagers wish to get their tanks repaired and kept effective. The Government should now formally undertake this responsibility of maintaining

these tanks on behalf of the villagers, and in return the villagers should pay the State revenue thereon in whatsoever manner the Government may deem suitable.

I propose, therefore, that I now be given authority to make this announcement to the villagers in respect of every fourth-class tank, in imposing on it a fluctuating assessment, namely that the Government will from now henceforward put all these fourth-class tanks into effective repair as soon as may be and maintain them on behalf of the villagers, to whom the tanks will continue to belong, and that, in return for this undertaking, the Government will assess and recover the revenue on the lands irrigated from these tanks in the same way as the revenue is assessed and recovered in respect of the lands of all other tanks.

27. With regard to the actual form of the fluctuating tank assessments to be proposed, neither of the two fluctuating systems at present existing in Ajmer-Merwara on the first and second-class tanks can be recommended for adoption exactly in the form in which it now is, for the reasons given in the Note on the existing methods of assessment of classes I. and II. tanks, attached as Appendix I. to this report, perusal of which Appendix is requested. Both these systems assess on areas only, but a system is required which takes account of out-turn. It should be free also of the complexities and anomalies of the present variable system on second-class tanks, and more elastic than is either this latter system or the present crop-rate system on first-class tanks.

28. The system which I propose for the future, which will, I think, give full effect to the wishes of the Government of India, if not to their strict letter, first of all puts all tanks of all present classes on to the same one simple footing, and then takes the revenue on their lands by a rate per classes of crops applied to the actual cropped area matured at each harvest, this revenue again being subject to a proportionate reduction according to the character of the out-turn of the crops on the particular area matured, as determined by reference to "standard average yields" of the crops in question. It is in fact really only the old crop-rate system on first-class tanks, with the addition to it of the principle of demand according to out-turn.

As, however, I wish to propose that this same simple system be applied to *chahi* and *barani* lands also, I defer further discussion of it here until the circumstances of the *chahi* and *barani* cultivation have been examined.

In the meantime it need only be said that the present tank classification and also the present Irrigation Rules—except those relating to the management of tanks—may all be abolished, and the place of the rules abolished be taken by a few simple straightforward rules free of all intricacy and easily intelligible to the people.

29. The same system will apply to *abi* as to *talabi* lands. Much of the *abi* soil in the bed of tanks is already simply assessed by applying a fixed rate to the actual area sown at each harvest. The only modification required here is to assess, not the sown area simply, but that portion of the sown area which matures, and to assess that portion according to its out-turn. The system proposed allows for all this. The rest of the *abi* soils, now under fixed assessment, whether in the bed of tanks, or elsewhere, will also be brought under the same system.

"CHAHÍ" LANDS AND WELLS.

30. The general position as regards the wells and well lands in Ajmer-Merwara is already stated, in brief, by the Government of India in para. 7 (ii) of their letter No. 417-42-2, dated the 26th February 1907. I may, however, put in the following figures and facts, which serve not only to demonstrate the general truth of the proposition, as stated by

the Government of India that, "Wells in Ajmer-Merwara vary a good deal in their capacity from year to year and from place to place, and a considerable proportion of them are disused and out of repair even in normal times, so that in this case also a purely fixed assessment must result in the payment of a good deal of revenue by the peasants on lands which no longer receive the benefits in respect of which the revenue was assessed," but serve also to indicate conveniently the general history of the tract during the expiring Settlement period and the conditions on which we have now to assess.

31. The real point about wells in Ajmer-Merwara is that, except in a few localities, they are all rock wells, with only a percolation supply. In alluvial tracts elsewhere in India the subsoil contains practically everywhere a stratum, or strata, of sand, which act as a sponge and store up quantities of water which it would take a long series of years to exhaust. In these tracts well building is merely a comparatively simple question of overcoming certain mechanical difficulties: when once the sand-sponge-stratum is tapped and the spring level reached, the wells have a supply which for practical purposes may be called truly perennial. The water level of course sinks deeper at times—but there is always water in the subsoil at some depth, and it is usually merely a question, when going deeper, of keeping the well cylinder clear of silt.

In Ajmer-Merwara, there are very few places where workable wells can be dug without going through the rock. Generally, though the surface soil may vary from place to place in depth, yet underneath there is always rock, in most places almost immediately under the surface, through which rock the well has to be painfully blasted, until deep enough to collect a workable supply of water by percolation through crevices and along fissures in the rock. The great point about them is that the 'spring,' such as gives the supply in the permanent wells in an alluvial tract, is to be found in only very few of these rock wells.

A percolation supply is always precarious. If there is rainfall, or a tank or some such reservoir in the neighbourhood still holding up some water, these percolation rock wells will get some water in them. But let the tank run dry, or the rainfall fail, and these wells also stand empty, or give only a small, often impracticable, supply.

32. As indicating how the water level varies in the wells over, at any rate, a portion of the tract along the railway line, I put in the following statement, with which I have been supplied by the courtesy of the local Railway Administration.

STATEMENT II.—*Showing depth of water in wells in the middle of May
for each year.*

Place of Well.	Depth of bottom of Well below coping in feet.	DEPTH OF WATER IN WELLS IN FEET.							
		1900.	1901.	1902.	1903.	1904.	1905.	1906.	1907.
1	2	3	4	5	6	7	8	9	10
1. Tilaunia North well...	68	6 $\frac{3}{4}$	10	11	7	12	9	4	18
2. Do. South...	$\frac{60}{61}, \frac{61}{67}$	11	26	12 $\frac{1}{2}$	18 $\frac{1}{2}$	15	9 $\frac{3}{4}$	4	14
3. Ladpura ...	68	8 $\frac{1}{4}$	13	12 $\frac{1}{2}$	19	14	28	24	26
4. Madar ...	54	6 $\frac{3}{4}$	13 $\frac{1}{2}$	15	15 $\frac{1}{4}$	15	22	7 $\frac{1}{4}$	11
5. Saradhna ...	79	...	22 $\frac{1}{4}$	...	...	...	...	...	...
6. Tabiji temporary arrangement ...	33	...	7 $\frac{3}{4}$	...	...	...	...	...	...
7. Mile $\frac{2\frac{1}{2}}{2\frac{1}{2}}/15-16$	63	...	17	17	14 $\frac{3}{4}$	10 $\frac{1}{2}$	10 $\frac{3}{4}$	5 $\frac{1}{2}$	12
8. Beawar ...	$\frac{74\frac{1}{2}}{61\frac{1}{2}}, \frac{80}{67}$	...	15	6	2	8 $\frac{1}{2}$	11 $\frac{1}{2}$	2 $\frac{1}{2}$	9
9. Sendra ...	58	...	11	11 $\frac{1}{2}$	7 $\frac{3}{4}$	9 $\frac{1}{2}$	10 $\frac{1}{2}$	2	11 $\frac{1}{4}$
10. „ River ...	...	...	11	...	...	...	...	2 $\frac{1}{4}$	...

(NOTE: denominator figures in column 2 denote the year in which the well was built or deepened.)

The ten wells listed here are, of course, railway wells, used for engines or drinking purposes only, but we may assume that the levels in other wells in the more immediate neighbourhoods of these are at the same times fairly closely similar, and as the Railway Administration makes periodical measurements of its wells and keeps up a careful record of them the figures in this statement may be relied on as correct.

Thus, to notice only one instance in detail—the well at Beawar—in 1901, the depth of water in it was 15 feet: in 1902, 6 feet: in 1903 only 2 feet: and it then rose to 8 $\frac{1}{2}$ feet in 1904, and 11 $\frac{1}{2}$ feet in 1905, but fell again abruptly in 1906 to 2 $\frac{1}{2}$ feet only, rising again equally abruptly to 9 feet in 1907.

Mr. LaTouche's remarks in para. 274 of his report may also be quoted here: "The height of water in the wells, however, depends entirely on the season. In the dry season of 1871-1872 I measured a dry well at Dewair which was 60 feet deep, and next year this well was brimming over."

33. Even in the best of times many of these rock wells in Ajmer-Merwara, in tahsils Ajmer and Beawar, at any rate, seldom get at any one time a sufficient supply to enable them to be worked throughout the day. The usual supply is a scanty one which is exhausted before mid-day or in a few hours, and the crops have to be left until another supply accumulates in the well sufficient to make it worth while to work it again. In the case of the majority of these wells one can often stand over them when empty and hear the water trickling into them from the higher fissures in the rock.

34. These wells, however, would serve well enough within their limits if the rainfall was fairly certain and came regularly at fairly definite times, but the rainfall in Ajmer-Merwara is notoriously uncertain.

This is so well known as to need no re-stating, but I put on record here the figures of the rainfall for the past twenty years in the Ajmer district :—

Years.	Inches. Cents.	Years.	Inches. Cents.	
1887-1888	22 0)	1897-1898	20 93)	(Average for 20 years-1951).
1888-1889	18 7)	1898-1899	14 05)	
1889-1890	21 4)	1899-1900	8 36)	
1890-1891	12 5)	1900-1901	28 18)	
1891-1892	8 50)	1901-1902	12 91)	
1892-1893	37 28)	1902-1903	15 57)	
1893-1894	25 20)	1903-1904	22 41)	
1894-1895	25 33)	1904-1905	16 56)	
1895-1896	17 05)	1905-1906	6 79)	
1896-1897	23 02)	1906-1907	23 33)	

A more detailed statement showing the rainfall registered since 1880 at the several rain-gauge stations in the district is given for reference in Appendix VII.

35. The average is nineteen and-a-half or roughly 20 inches, but these mere figures of the total amount of rain received each year is no indication of the real conditions in this tract. The manner of its distribution is much more important. If Ajmer-Merwara could rely on getting its annual rainfall well distributed at the proper time and in an agriculturally-convenient manner, a part only of even these 20 inches would suffice perfectly well to keep the tract comparatively secure and mildly prosperous. But not only does the total amount received, as the above figures show, vary very largely, but its distribution is equally a matter of chance and variability. In this matter there is nothing to add to the general indications of Mr. LaTouche's remarks in paragraphs 30-33 of his Final Settlement Report, except my own observations of 1907-1908. Here the total rainfall was generally some 20 inches—well up to the average in quantity—but the monsoon rains of 1907 came late, not till practically the beginning of August, and then practically this whole quantity of rain fell in the short space of twenty days. The tanks filled, fortunately, but this badly-distributed rainfall did much damage to portions of the *Kharif* crops, while its sudden and premature cessation caused the whole *Kharif* harvest on the *barani* areas, inaccessible to irrigation, to wither up completely.

The distribution was also very uneven. Thus while Todgarh generally and portions of Beawar got regularly swamped out, other portions of the Beawar tahsil received next to no supply. Appendix VII also shows how in past years the distribution of the rainfall has varied largely from place to place in the same district in the same year.

36. Mere quantity of rain, therefore, means nothing, except at times positive harm. Its figures require to be read with those of its distribution : and the latter can only be properly gauged from the observation of its effects upon the harvests. The character of the latter in the Ajmer district is shown in the statement now given, which I have compiled from the District Administration Reports for the past twenty-three years. (Similar statements for the Todgarh and Beawar tahsils exhibit, with slight variations, the same results).

STATEMENT III.—AJMER DISTRICT.

Crop out-turn character of the years since last Settlement.

Years.	Kharif.	Rabi.
1885-1886 (1293 F.)	Under average	Area small and crops moderate.
1886-1887 (1294 F.)	Poor	Poor.
1887-1888 (1295 F.)	Unfavourable	Suffered from want of irrigation and injured by hailstorm.
1888-1889 (1296 F.)	Good	Moderate, irrigation deficient.
1889-1890 (1297 F.)	Cotton fairly good. Other crops injured	Moderate.
1890-1891 (1298 F.)	Below average... ..	Good in parts, but generally below average.
1891-1892 (1299 F.)	Very poor (Famine)	Very poor.
1892-1893 (1300 F.)	Maize and cotton suffered (10 anna crop).	Good (15 anna crop).
1893-1894 (1301 F.)	Good (13 anna crop). Cotton damaged.	Fair (13 anna crop).
1894-1895 (1302 F.)	Fair (12 anna crop)	Fair (13 anna crop).
1895-1896 (1303 F.)	Much below average	Poor. Seriously affected.
1896-1897 (1304 F.)	Fair, cotton good, but Barani suffered	Good average.
1897-1898 (1305 F.)	Good average	Fair. Injured by frost and winds.
1898-1899 (1306 F.)	Poor. Barani damaged	Area very small and out-turn poor.
1899-1900 (1307 F.)	Failed. (Famine)...	Dead failure.
1900-1901 (1308 F.)	Good	Fair.
1901-1902 (1309 F.)	Poor, injured by drought	Fair to poor.
1902-1903 (1310 F.)	Poor (6 anna crop)	Fair.
1903-1904 (1311 F.)	Moderate	Good.
1904-1905 (1312 F.)	Fair (10 anna crop).	Poor, damaged by severe frost.
1905-1906 (1313 F.)	Failed. (Famine)...	Very poor.
1906-1907 (1314 F.)	Good (but poor in 14 villages of Gangwana Circle)	Fair.
1907-1908 (1315 F.)	Good in irrigated, complete failure in dry	Fair to good.

The general effect of this statement can only be called depressing. Out of forty-six harvests only some eight can be called good, that is not below a thirteen anna standard; a few more were of a moderate character, the remaining majority were poor. There were three decided famines in the period, and in several other years serious distress. The general average of prosperity has been undoubtedly low.

37. The general history of the period, that is of the last twenty years, is reflected also in the balance sheets of the demands and collections of the revenue. The figures for the Ajmer tahsil are as shown below:—

STATEMENT IV.

Showing Collections of Land Revenue and Water Revenue in the Ajmer Tahsil during Current Settlement.

YEARS.	Demands.			Collections.			BALANCE.			REMARKS.	
	2			3			4				Outstanding.
	Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.		
1887-1888	1295 Fash	1,55,908	...	...	1,55,713	...	...	...	...	...	Famine.
1888-1889	1296 "	1,74,765	...	...	1,74,150	...	...	...	...	195	
1889-1890	1297 "	1,63,612	7	...	1,63,612	7	...	...	...	615	
1890-1891	1298 "	1,81,281	4	6	1,78,328	7	6	...	...	...
1891-1892	1299 "	1,20,730	13	11	71,234	6	6	...	...	2,955	
1892-1893	1300 "	1,89,378	...	4	1,11,048	6	11	6,260	1	9	49,496
1893-1894	1301 "	2,53,278	...	7	2,09,908	...	2	37,590	15	4	72,069
1894-1895	1302 "	1,75,995	14	...	1,74,402	14	...	...	...	...	1,593
1895-1896	1303 "	1,65,526	12	5	1,65,331	12	5	...	...	...	195
1896-1897	1304 "	1,71,019	10	7	1,71,291	10	7	...	...	...	355
1897-1898	1305 "	1,62,001	10	1	1,61,871	10	1	...	...	...	130
1898-1899	1306 "	1,70,459	15	4	1,56,586	8	3	...	...	...	13,883
1899-1900	1307 "	1,52,688	11	11	70,499	8	10	69	7	5	82,119
1900-1901	1308 "	2,26,659	10	10	1,04,568	13	...	...	...	...	1,22,090
1901-1902	1309 "	2,83,085	...	8	1,65,206	10	9	...	...	...	1,17,878
1902-1903	1310 "	2,70,312	3	8	1,00,766	3	...	...	...	...	96,463
1903-1904	1311 "	2,53,938	8	4	1,17,772	...	11	73,082	9	5	1,36,106
1904-1905	1312 "	2,91,732	4	7	1,97,241	12	...	...	...	...	94,464
1905-1906	1313 "	2,12,580	13	1	56,933	12	5	1,459	8	5	1,54,187
1906-1907	1314 "	3,06,431	11	9	1,13,635	15	4	43,829	9	...	1,48,966
Yearly average					1,40,005						

NOTE.—The demands in column 2 include the fluctuating revenue in variable villages; also unremitted arrears of previous years.

The figures for 1907-1908 are not yet complete, but heavy suspensions and some remissions on account of the failure of the *Kharif* harvest at least have been proposed.

In the last ten years, at any rate, the tale is one of constant and growing arrears, suspensions and remissions, and—notwithstanding that the people have certainly become demoralised to some extent—of real inability on their part to meet the Government demands and the interest on their debts, and yet live. The standard demand fixed by Mr. Whiteway was Rs. 1,65,625—for tahsil Ajmer (apart from variable revenue on 3,366 acres of *abi* soil in the bed of tanks). The average annual collections, however, over the whole period has been Rs. 1,40,005 only, and during the last decade, Rs. 1,24,508 only. But apart from this loss of revenue, the Government has had also to incur heavy direct expenditure on Famine Relief.

38. Deducting from this standard demand of Rs. 1,65,625 some Rs. 20,000 for the average revenue on variable villages since 1893-1894, and some Rs. 25,000 variable water rate, we have remaining roughly Rs. 1,20,000, as the yearly normal demand on account of fixed assessments. The Rs. 45,000 above being already a fluctuating demand assessed at each harvest with some approach to proportioning the demand to the actual sowings at any rate, the strain which has caused the large arrears which disfigure the demand and collections balance statement must be considered as having arisen practically wholly from the pressure of this fixed rigid item of Rs. 1,20,000.

39. But, *vide* para. 86 of Mr. Whiteway's final report, the bulk of this sum relates to the assessments on the well lands, these having to contribute every year, no matter what be the state of the wells, over Rs. 73,000, or 61 per cent. of the whole fixed demand.

The aggregate *chahi* area in respect of which this sum of Rs. 73,000 was assessed was 18,237 acres (para. 85 of Mr. Whiteway's report).

The average *chahi* area cultivated, however, for the past fifteen years for which completed Khasras in their present form are available, has been (*vide* Appendix VIII.) 15,560 acres only. Even excluding the two bad famine years of 1307 and 1313 *Fasli*, and taking the average of the remaining thirteen years, we get an average annual *chahi* cultivated area of 16,017 acres only (*vide* Appendix IX.), and even for the five selected years from the figures of which the net assets (*vide* para. 145) have been calculated, the average *chahi* area is 17,084 only (*vide* Appendix X.).

This decrease of the *chahi* area has not been made good by an increased area of tank-irrigated areas, inasmuch as the average tank-irrigated areas for the fifteen and the thirteen year periods have been 6,018 and 6,382 acres only respectively, as compared with 9,263 acres assessed by Mr. Whiteway in arriving at his standard demand of Rs. 1,65,625.

40. That is, all the foregoing figures indicate not only that the fixed assessment has utterly broken down in the unstable conditions of Ajmer, but that over an average of the last fifteen years for which we have figures some 2,000 to 3,000 acres of unirrigated land have been called upon to pay a full *chahi* rate of Rs. 4-1 (this is the figure of the district average *chahi* rate) per acre, and that the resources of the cultivators have proved unequal to meeting this charge.

41. How the sown *chahi* area has actually varied in each year in the past fifteen is shown in Appendix XI. The figures there given (which are approximate only for the reasons given in the statement) relate to the crop areas in both harvests, and require to be reduced in each year by some 20 to 25 per cent. on account of *dofasli* included to correspond with the annual cultivated area.

But again the mere figures of areas are not in themselves a sufficient guide to the economic position. The tract being a purely agricultural one in which all the produce that can be raised is needed for the support of the population, the amount of total out-turn per year is the important question. The people are best off when the total yield is large, even though the actual out-turn per individual acre may be somewhat under average. A small total yield is not compensated for by higher prices, as, to use the colloquial idiom, the people's stomachs are not filled.

42. To extract from the Khasras, the annual yields for each of fifteen years for every village of the district would have involved so much labour and expense and would have taken so long, that I have taken 55 villages only and restricted this extraction work to them. The results are shown in Appendix XII. What has happened in these villages may be accepted as a sufficient guide to similar variations in the tahsil as a whole.

The variations, it will be seen, are somewhat violent. For these 55 villages the lowest figure of produce on the *chahi* lands is 29,202 maunds and the highest is 67,265 maunds, the average being 47,062. That is, the yearly produce even on *chahi* lands varies by so much as 43 per cent. above and 38 per cent. below the average. Even if the two famine years, 1307 and 1313 *Fasli*, be excluded the range of variation is still 34 per cent. below the average. Similar figures for *talabi* and *abi* soils are also given in this Appendix, and their produce variations are even greater. Cultivation on *barani* soil is considered separately in a later paragraph of this report.

43. In the summary of all the foregoing (paras. 31 to 42,) it is obvious that after all even for the *chahi* cultivation the governing factor is the character of the yearly rainfall. If this is favourable the resources of the cultivators are good to meet the revenue demand: if it is unfavourable the area decreases, there is a serious diminution in the food supplies of the people, and the revenue under a fixed assessment becomes unpayable. The revenue-payers are not capitalists—they are all struggling brotherhoods of indigent petty peasant proprietors already much indebted, with whom, as Mr. Whiteway remarks (para. 26 of his report) the theory that the revenue might be paid in bad years from the profits of the good, does not hold water. "Like peasantry all over the world the zamindar lives from hand to mouth. He spends his surplus in good years, and when hard times come he is driven to borrow, and rarely afterwards manages to clear off the load of debt and accumulated interest."

The wells of the tract are rock wells peculiarly dependent on the annual rainfall: the latter is very, precarious, and more often than not ill-distributed: it is also, as often as not, very partial. There is perhaps a fall of rain in one locality and the tanks and wells here have a supply of water for irrigation, while at a little distance off the wells are still quite dry.

In short, even as regards the wells and the well-irrigated lands of Ajmer-Merwara, the only certainty is their uncertainty.

44. The question now is, how to assess these *chahi* lands for the future? In the first place an assessment on the lines of the old current system is out of the question—that is, if we are to proportion the demand to the outturn, and to avoid demanding revenue which is not really due. This old system has, certainly over much of the expiring Settlement period, been demanding, unsuccessfully, a high *chahi* assessment from some 2,000 to 3,000 acres in tahsil Ajmer alone "which no longer receive the benefits in respect of which a revenue was assessed."

There are, of course, the suspension and remission rules which, if promptly and carefully worked, could obviate much of the above evil. But in the conditions of Ajmer-Merwara, even as regards the fluctuating *chahi* cultivation, they would have to be very frequently applied. In

fact if with a fixed assessment these were employed to meet the problem of the *chahi* fluctuations, their application would have to be the rule rather than, as elsewhere, the exception, held in reserve for abnormal times.

But a constant application of suspensions and remissions is very demoralising in its effects upon the cultivators. With such a system the only remedy to reduce the occasions of remissions and the work of remitting is to pitch the assessment low. But an assessment with reference to poor or bad years is not only out of all relation to even an averagely-good year, but has not usually been found by experience elsewhere, I believe, to be a real kindness to the cultivators. On the contrary, an enlargement of their credit equally generally results in an enhancement of indebtedness.

45. In para 7 (ii) of their letter the Government of India leave it to the Hon'ble Chief Commissioner "to decide whether a system of fluctuation similar to that proposed for *abi* and *talabi* cultivation should be introduced, or whether a fixed assessment should be maintained subject to the following provisions."

The provisions referred to are those to give effect to para. 11 of the Government of India's Resolution No. 6, dated the 24th May 1906, and the Government of India suggest that "the best way of doing this will probably be to place a lump sum on each well, representing so much of the assessment on the area irrigated by the well as in excess of the ordinary dry assessment that would be paid in the absence of the well, and to render this additional lump sum liable to remission when the well—for whatever cause—goes out of use."

46. I am not, however, able to advise the adoption of this second alternative method as the one best suited to Ajmer-Merwara. The system, as sketched above, of lump assessments on the wells to be remitted when the well goes out of use, would be only a very partial solution of the well problem in Ajmer-Merwara.

This problem is not simply one of the wells going in and out of use over periods of any length of time, or over definite tracts, or even of being in use up to their full assessed capacity in one year and absolutely dry in the next.

The real problem we have to deal with relates to wells whose irrigation capacity varies largely from year to year, and often remain for long periods largely below any standard irrigable area that could be fixed.

47. With a simple system for the assessment of wells restricted to lump assessment on them, remissible when the well goes out of use, we should, first, have to fix some 'standard irrigable area,' for each well in relation to which the lump sum should be assessed. The fixing of this 'standard area' would, in the conditions of great variability which occur in Ajmer-Merwara, be a matter of some difficulty to start with, and, as an area would have to be fixed for each and every well, would take some considerable time.

48. Further, *primâ-facie*, as we are to be prepared to remit the lump sum in cases of the well going out of use, we ought to take as high as possible a figure for this standard irrigable area.

But a high standard irrigable area with this system would press very oppressively upon the owners of the wells which, while not actually out of use, were much reduced in irrigating capacity.

49. This system, in fact, while being no doubt, next to a purely fixed assessment, the simplest to work, and representing a great advance from the latter in the direction of proportioning the demand from time to time to actual conditions, has the prime defect of not touching the wells under which the actual irrigated areas continue for long periods to be much

below the standard irrigable area without the water supply giving out altogether—a class of wells of the principal importance in Ajmer-Merwara.

50. Under this lump-system also the wells would only be really profitable when they could irrigate an area not appreciably below the “standard irrigable area,” whether that “standard” be pitched at a high, easy, or low level. This is a fact which, if perceived by the people, would probably tend to discourage them from the building of new wells in the future.

51. A further advance could be made towards solving that problem somewhat more satisfactorily by modifying the above simple system of lump assessments remitted when the well goes out of use, so as to provide for proportionate reductions of the lump assessment to the extent by which the actual irrigated area falls below the standard area on which the lump sum was increased.

This modified method, however, and certain other methods of assessing *chahi* lands in Ajmer-Merwara which seem to me to be possible may all be stated here and considered together.

These are as follows:—

- (1) To fix on each well a standard irrigable area, and to assess this area at a dry rate, and then to place on the well a lump sum (representing so much of the assessment on the dry area irrigated by the well as in excess of the ordinary dry assessment that would be paid in the absence of the well), and then to devise a scheme with a graduated scale according to which greater or less amounts of this lump sum should be remitted in proportion as the actual area irrigated at any harvest, or in the year, falls below the standard irrigable area, the whole lump sum being remitted when the well is entirely out of use.
- (2) To fix for each well a standard irrigable area, and to assess this area at a dry rate, and then to place on the well lands a fixed ‘*chahi*’ rate per acre, which rate applied to the standard irrigable area gives the standard *chahi* assessment on the well, and then to remit a varying part of this standard assessment harvest by harvest, or year by year, in proportion to the number of acres out of the total standard irrigable area which become unirrigable, or remaining unirrigated, and this whole standard assessment to be remitted when the well goes wholly out of use.
- (3) To fix a ‘*chahi*’ rate per acre of soil for each well or for a group of wells in a village, or for all its wells alike, and to apply this rate harvest by harvest to the area actually irrigated only—assessing any other land formerly ‘wet’ but now remaining unirrigated at the particular harvest at the dry rate or rates for the village.
- (4) To fix a ‘*chahi*’ rate per acre of soil etc. (as in method three), but to attach to this rate a standard of normal yield of produce out-turn *per acre of soil*, and to apply this full rate only to the fully-matured areas irrigated—and to reduce this full rate, or the revenue given by it for partial degrees of maturity—the degree of “maturity” of the actual area sown being determined by estimation of the produce out-turn of that area and its ratio to the standard normal yield.
- (5) To fix a *chahi* rate per acre of soil, etc. (as in method three), but to attach to this rate a standard of normal yield of produce

out-turn *per crop per acre of soil*, and to apply this full rate only to the fully-matured areas irrigated, and to reduce this full rate, or the revenue given by it, for partial degrees of maturity—the degree of maturity for each crop for each class of soil being determined by reference of the actual out-turns to the standard normal yields.

- (6) To fix a rate per unit area (acre or bigha) per crop, or class of crops, a higher rate being fixed for the better crops and lower rates for the poorer or less lucrative crops—these rates to be fixed with reference to the average yields of the crops per averagely-matured unit area, and these full rates or the full revenue given by them, to be taken only when the out-turn of the particular harvest is up to the standard of the average yields, but a reduction in these full rates, or rather in the total figure of the revenue which would be produced thereby, to be made in proportion as the actual out-turn per crop or class of crops fall below that standard.

52. Of these six methods, in the first place, each succeeding method is, I think, better than that which precedes it.

Secondly, the first two of these methods not only have the difficulty, in initiating, of fixing the standard irrigable area, already referred to in para. 47, but would also still fail very largely of the expressed intention of proportioning the demand to the actual out-turn, that is, more largely than need be accepted, when much more effective, and at the same time really simpler, methods are available.

53. The second method listed in para. 51 would go further than the first method in solving the problem of the wells whose irrigating capacity remains for long periods below any standard irrigable area that could be fixed, but which do not go out of use entirely, and at the same time it would go a longer way towards actually proportioning the demand to conditions at the moment, so far as mere areas indicate them. But both would still be more complex in practical working than the third method, which dispenses, to start with, with the troublesome question of fixing a standard irrigable area and saves much time in the initial assessments, while it is simplicity itself in its practical working—meaning only the application of a rate to the *chahi* area recorded in the Khasra.

54. As compared with the methods 4, 5, and 6, however, this third method also, though the simplest of all, still suffers from the defect of regarding cultivated area only. And if we were assessing *chahi* land only in a stable tract, this defect would not be serious, inasmuch as, while the area may contract or expand, the average out-turn per acre on well-lands varies only slightly, except in bad years when the ordinary revenue suspension and remission rules would come into operation.

But in Ajmer-Merwara, in the case certainly of *burani* and *abi* lands, and very largely also in the case of *talabi* land the actual out-turn is of far greater importance than the mere area cultivated. Assessments based on areas merely are not suited to these soils in Ajmer-Merwara, that is, if we desire to make the demand fit the actual conditions from time to time. But it would be better to avoid, if possible, having two different principles at work—one for the well lands regarding areas only, and another for the other soils basing the demand on the out-turns. Moreover, while the degrees of variation in out-turn on well lands are ordinarily very much milder, yet there are considerable variations, *vide* Appendix XII., whose figures indicate that even in years other than famine years the out-turn per acre has varied in the past (the Khasra entries being admitted to be correct expressions of actual facts) from nine maunds to over fourteen maunds.

55. Further, even if we did adopt this third method for the *chahi* lands' assessments, yet poor seasons will always come, and it will be necessary to estimate the character of the harvest, for the purpose of determining whether the full Settlement demand shall or shall not be exacted, and if not, of fixing the amount of the abatement to be made.

But how is this to be done? It is, of course, possible for an estimate to be made in a rough-and-ready way, more or less by the eye, that the crop is so many annas of the normal. But what is to be the normal? The only reasonable standard of a normal must be the average out-turn per average acre. In times of stress, at any rate, we should have to refer the particular out-turn of the particular harvest on the well lands also to such a standard; we should have, in short, to estimate its character, in a manner precisely identical with that by which we propose to deal with the out-turns from other soils. In Ajmer-Merwara these seasons of stress are unfortunately comparatively frequent. And a standard having to be thus fixed in any case, it would be well to make as much use of it as possible. At any rate, the adoption of method three would not get us out of any difficulties in bad seasons: we should still be driven to apply some method akin to either four or five listed in para. 51.

56. Even at the sacrifice of some simplicity, therefore, I think that any one of methods 4, 5 and 6, though introducing a degree of complexity into the work of assessing, is better than method three. This complexity is, however, not really serious, and is, besides, a small matter as compared with the confidence thereby produced in the accuracy of the assessments. In fact, without this adjunct of standards of yields, it could never be claimed that our *chahi* assessments really observed the principle of proportioning the demand to the actual out-turn as apart from the area.

The only methods calculated to do this are methods 4, 5 and 6 of para. 51.

57. Of these, however, method four must be rejected as not really workable in practice. In the first place, it is obviously easier to fix standard normal yields *per acre of crop* than *per acre of soil*. Standard yields per acre of soil must necessarily be very much more uncertain (if not fictitious) than those *per acre of crop*. We can judge, with perfect accuracy on the available figures, what has been the average out-turn per acre or bigha on any kind of soil—*chahi*, for instance—of *maize*, for example, say 10 maunds, or of wheat or barley or any other specific crop.

But the matter is very different when we have to fix composite normal yields for all kinds of crops that may be grown on any one soil. *Chahi* soil will produce crops of all the usual kinds; the total *chahi* areas in any one village in any one harvest will have borne numerous crops in all sorts of combinations. These combinations must be expected to alter from time to time, perhaps from harvest to harvest. If they do, they must tend to throw any one composite standard out of relativity to actual conditions, especially as applied to individual villages. For instance, with a standard normal yield per acre of *chahi* soil of (say) 10 maunds all-round of produce from all crops usually grown on *chahi* soil, this standard would only be a fair one so long as an individual village continued to grow all sorts of crops on its *chahi* lands in about the same proportion as that which obtained in the figures from which the above standard was deduced. But suppose that in the individual harvest the village grow very little of other crops and put practically all its usual *chahi* area under cotton. The all-round yield of that harvest might fall relatively to some 7 or 8 maunds only per acre, and the application of the above standard would indicate ostensibly that the out-turn of the village was some 25 per cent. at least under the 'normal,' and that a remission of one-fourth of the full of revenue was needed, though as a matter of fact the village would, on the contrary, probably be better off with its 7 to 8 maunds of the valuable cotton crop than it would have been with 10 maunds per acre of mixed, and on the whole less lucrative ordinary crops. Other similar anomalies

would also be possible—to obviate which, under system four, and to approach a little nearer to accuracy, we should really require a number, indeed a large number, of standards fitted to suit all sorts of sets of combinations of crops and their rotations.

On the other hand, as changes in the methods of cultivation of any individual *crop* in a tract occur but slowly, and take usually a long period to develop, the average out-turn per individual *crop* under averagely-prevailing conditions, whether favourable or unfavourable, remains fairly constant, and a standard per crop, sufficiently stable and reliable for all practical purposes, can be fixed and relied on for use over a period with fair confidence.

58. Secondly, a *chahi* rate per soil under method four must be either one fixed for the whole year or one fixed for the harvest.

But if this rate is to be a harvest rate it has no superiority over a crop rate such as is contemplated in methods 5 or 6. On the contrary, while under the latter methods the rate is fixed with reference to definitely ascertained average out-turns of each individual crop, and is comparatively a “real” rate, this “soil” rate again represents only an attempt, more or less imperfect, at an all-round rate to fit varying combinations and permutations of all kinds of crops, and is necessarily at best a mere rough-and-ready rate.

On the other hand, if the rate be fixed for the whole year, another serious difficulty arises. For a certain varying proportion of *chahi* soil is always double-cropped.

If the rate is fixed with reference to *ekfashi* land only, this double-cropped area escapes too lightly. If, on the other hand, as an annual *chahi* soil rate must necessarily be, the rate is fixed with reference to both *ekfashi* and *dofashi* factors, the result must be that this general all-round rate is really too severe for the *ekfashi* land, *i.e.*, the bulk of the *chahi* soil, while it is again easier than need be for the *dofashi* areas, for the rate could not be fixed to fit the *dofashi* areas alone.

Such a rate, fixed with reference to both *ekfashi* and *dofashi* areas, would of course tend to encourage double-cropping, but this might obviously result in more harm than good.

This difficulty could, of course, be met by fixing an *ekfashi* rate only, and then by taking on any land cropped a second time in the year the whole of this rate, or part of it, at the second harvest.

But here once more, equally as before, the question of standard normal yields would still come in, with even greater complexity if, as is possible, still further standards were required.

59. In short, this method would entail great labour and risks and recurring difficulty. The labour of fixing the numerous standards required would be enormous if, aiming at a high degree of accuracy, we had to fix them village by village. But this labour would, I think, ultimately go for nothing; for the system would prove so difficult of working that it would sooner or later either break down altogether or get hopelessly out of relation to actual facts: while in the meantime there would be always the very difficult problem for the assessing officers of making the right selection of the particular standard to be applied to the particular harvest, with possible wrong selections and consequent gross inequalities in the assessments,—with, in fact, results entirely nullifying the system’s intentions.

60. There remain now methods 5 and 6; the only question now seems to me to be to choose between these two.

A soil rate as in method five is more on the lines of the system hitherto prevailing in Ajmer-Merwara. Crop rates on *chahi* soil here, on the other hand, will be a novelty. Either system, however, would work in Ajmer-Merwara for *chahi* lands.

And if the methods of assessment of all other soils, *talabi*, *abi* and *barani*, had been definitely decided on settled lines not now open to discussion, and there was no point of having, if possible, one system that would suit all soils equally well instead of two or more systems, this fifth soil-rate method might well be adopted, for the above reason of a soil rate being at present familiar to the people.

61. But a crop-rate system of assessment has already long prevailed upon lands under first-class tanks, and it is now proposed (*vide* paragraphs 28 and 29 of this report) to bring the lands of tanks of all classes and all *abi* soil also under the same simple system, somewhat modified only in the direction of making it more elastic. And *barani* cultivation also, I am persuaded, cannot be better dealt with in Ajmer-Merwara than under this same crop-rate system.

Chahi cultivation can be equally well assessed under this same system of crop-rates as under the fifth or soil-rate method. A general all-round crop-rate system in fact can, in my opinion, assess all four classes of soils equally well. From this point of view this crop-rate method has far superior merits to the soil-rate system. For, while the crop-rate method can be worked on all soils with, in general, one standard only for each crop and with the maximum of simplicity possible in the circumstances, the soil-rate system if applied to all soils would be very much more complicated in its working. Thus, in the first place, many crops can be, and are, according to the seasons, grown with or without irrigation on any of the four classes of soil. But the out-turn of the crop on each soil is not, in the average in the long run, the same. On *chahi* soil the average yield per acre is usually more than on *talabi* soil: on *abi* soil it is usually less again, and again less on *barani* soil. Under the *soil-rate-per-acre-per-crop* method (the fifth, that is,) therefore we should have to fix a standard of normal yield for all the ordinary crops for each soil, that is, four standards for each crop. This means, to begin with, an increase of complexity at Settlement; but this would be as nothing to the extra labour at each harvest involved in the application of these fourfold standards for each crop.

62. Moreover, the fixing of these soil standards for crops, on *barani* soil at any rate, would be a very difficult thing. In a year of favourable rainfall for instance, maize can be, and actually is at times, sown and matured without any artificial irrigation at all, and gives as heavy an out-turn as it does in another harvest when grown with well or tank irrigation. So too, with cotton. But for the particular harvest in question, the land having received no irrigation from either well or tank, must be classed as *barani* soil. A standard of yield, however, fixed for *barani* soil to suit such cases would be hopelessly out of relation to the ordinary yield of crops on *barani* lands in ordinary years: while again a standard fixed with reference to the latter conditions would be needlessly light for the cases above indicated and would sacrifice revenue quite unnecessarily. Further standards even over and above the four already necessary per crop would thus seem to be required—which, apart from the great difficulty in fixing them, would thus again add further complexity to a system already sufficiently complex.

63. Method six of para. 51 is thus, I think, preferable, inasmuch as while it will assess *chahi* lands on the whole as well as method five, it has the undoubted advantage over the latter of bringing uniformity instead of diversity. *Chahi* lands can thus be assessed on the same method as tank lands. For I take it that there is no question of changing the present rates on first-class tanks from *crop-rates* to *rates-per-acre-of-soil* irrespective of the crops sown, as now obtain on second-class variable tanks—a step which, in my opinion, would be a retrograde one. On the contrary what is proposed to be done, and should be done, is that the *crop-rate* system should be extended to these second-class tanks also, and their (soil—

irrespective of crop) rates be given up. This being taken for granted, as I think it must be, to assess well-lands by rates per acre of soil (as under method five of para. 52), while assessing tank-lands by rates per crop or classes of crops, would mean retaining two systems—a course in which there is no practical advantage when both well-lands and tank-lands can be equally well assessed by one and the same identical method.

Uniformity so far as possible is, I think, obviously desirable in any case; here it is not only possible but brings the great advantage also of considerably simplifying the work, both at Settlement and thereafter at each recurring assessment.

64. The sixth method stated in para. 51 is really identically the same system as that proposed for tank-lands (para. 28 of this report). The Government of India have themselves left it to the Chief Commissioner to decide whether well-lands shall be assessed under some fluctuating system similar to that proposed on *talabi* and *abi* cultivation (*vide* para. 45 of this report) or by some other.

For the reasons given in the foregoing paragraphs I personally strongly recommend the adoption of the same crop-rate system as on tank-lands for the *chahi* lands, not merely because uniformity and simplicity in working are thereby secured, though these are themselves great practical advantages, but because this system seems to me to be the best suited for Ajmer-Merwara not only on *chahi* lands but on lands of all classes.

For a detailed description of the actual system proposed, please see paragraphs 86 *et sequentia* below.

BARANI CULTIVATION.

65. As regards the assessment of the dry cultivation, I put in first the following statements and statistics relating to *barani* soil and their cultivation in the Ajmer district:—

STATEMENT V.

Showing Barani Areas by Circles in District Ajmer for fifteen years.

Years (Faali.)	AJMER.						GANGWANA.						PUSHKAR.						RAJGARH.						RANSAR.						
	Total area sown.	Matured sown.	Produce.	Average Produce on		Produce.	Matured area.	Total area sown.	Matured area.	Produce.	Average Produce on		Matured area.	Total area sown.	Matured area.	Produce.	Average Produce on		Matured area.	Total area sown.	Matured area.	Produce.	Average Produce on area.								
				Sown area.	Matured area.						Sown area.	Matured area.					Sown area.	Matured area.													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32
1300	14,715	12,031	39,683	2.70	3.30	20,656	18,275	71,934	3.48	3.94	3,082	3,806	7,690	1.93	2.02	14,983	13,939	45,821	3.06	3.29	27,347	21,436	94,593	3.46	3.87						
1301	11,835	11,016	21,646	1.83	1.06	23,152	21,156	60,602	2.62	2.86	3,402	2,998	4,732	1.39	1.58	19,055	17,432	47,714	2.30	2.74	25,043	23,937	76,085	3.04	3.18						
1302	11,151	9,826	24,666	2.21	2.51	18,889	17,058	53,990	2.86	3.17	2,958	2,382	4,901	1.66	2.06	16,766	14,957	40,825	2.43	2.73	24,618	22,662	77,090	3.13	3.40						
1303	11,734	7,172	10,857	.93	1.51	20,942	18,327	46,245	2.21	2.52	2,286	1,708	1,909	.84	1.12	13,078	8,300	12,476	.95	1.50	22,910	19,699	42,677	1.86	2.16						
1304	11,944	8,572	11,713	.98	1.37	19,049	12,624	20,505	1.08	1.62	3,234	1,932	2,009	.64	1.07	13,712	8,989	13,480	.98	1.50	23,119	18,344	31,001	1.47	1.86						
1305	12,230	9,238	15,300	1.25	1.66	22,997	21,046	60,958	2.65	2.90	2,767	1,926	4,999	1.81	2.60	15,588	12,806	23,785	1.52	1.86	31,486	28,269	78,506	2.49	2.78						
1306	11,096	8,114	16,248	1.46	2.00	16,808	7,587	8,114	.49	1.07	2,123	1,569	3,471	1.63	2.21	13,101	11,195	16,897	1.29	1.51	23,691	19,892	31,451	1.33	1.58						
1307	12,045	800	681	.06	.85	17,788	312	589	.03	1.39	1,827	518	428	.23	.83	13,603	154	250	.02	1.62	23,976	1,695	2,327	1.0	1.37						
1308	17,871	17,185	77,094	4.31	4.49	19,809	18,929	112,063	5.63	5.92	4,408	4,349	16,332	3.71	3.76	16,087	15,434	74,841	4.65	4.85	23,826	22,139	11,8,007	4.95	5.33						
1309	15,891	6,579	8,420	.53	1.28	20,140	2,277	3,695	.18	1.62	4,083	1,449	3,617	.88	2.50	16,046	3,711	15,166	.94	4.09	27,606	3,956	6,325	.23	1.60						
1310	15,842	13,640	31,268	1.97	2.29	19,500	16,349	51,945	2.66	3.18	3,993	3,905	10,576	2.65	2.71	14,730	11,065	22,817	1.55	2.06	23,641	20,214	55,259	2.34	2.73						
1311	16,537	12,263	15,653	.95	1.28	19,297	15,154	29,126	1.51	1.92	3,748	2,793	3,758	1.00	1.35	19,162	14,160	27,175	1.41	1.92	26,458	20,752	57,127	2.16	2.75						
1312	17,985	11,489	20,535	1.14	1.79	20,141	16,170	27,698	1.37	1.71	5,071	4,849	17,478	3.45	3.60	21,056	10,984	20,623	.98	1.88	26,546	21,427	38,779	1.52	1.81						
1313	16,589	2,903	2,343	.14	.81	5,089	104	136	.03	1.31	3,961	600	609	.15	1.02	12,896	3,098	5,807	.45	1.88	10,014	1,705	1,769	.18	1.04						
1314	16,583	15,656	60,219	3.63	3.85	19,090	13,838	33,720	1.77	2.44	5,190	5,408	18,771	3.42	3.47	17,335	15,674	41,793	2.41	2.67	19,896	19,002	56,363	2.83	2.97						
Total.	214,018	1,46,181	3,56,326	1.66	2.43	2,83,437	1,99,206	5,81,322	2.05	2.92	53,333	40,192	101,340	1.90	2.52	2,37,198	1,61,898	4,09,470	1.73	2.53	3,50,230	2,68,149	7,70,439	2.14	2.87						
Average.	14,270	9,766	23,755	1.66	2.43	18,896	13,280	38,755	2.05	2.92	3,553	2,679	6,756	1.90	2.52	15,813	10,793	27,298	1.73	2.53	23,949	17,877	51,363	2.14	2.87						

Note.—The figures of this Statement are not absolutely correct as several Khairas are missing or damaged.

STATEMENT VI.
Showing Barani Areas for the whole Tract, District Ajmer.

YEAR PASSE.	TOTAL KHALSA ONLY.					JAGIR.					TOTAL KHALSA AND JAGIR.						
	Total area sown.	Matured area.	4 anna less area, i.e., failed.	Percentage of failed to sown area.	Produce.	Average produce in maunds on		Total area sown.	Matured area.	Produce.	Average produce on		Matured area.	Produce.	Average Produce on		
						Sown area.	Matured area.				Sown area.	Matured area.			Sown area.	Matured area.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Area assessed	85,356	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
1,300	81,683	72,487	9,196	11.3	2,59,721	3.18	3.38	21,453	19,223	67,554	3.15	3.52	1,03,141	91,710	3,27,305	3.17	3.57
1,301	82,487	76,559	5,928	7.2	2,10,779	2.56	2.75	23,519	21,516	56,130	2.10	2.62	1,06,006	98,105	2,57,209	2.62	2.72
1,302	74,412	66,885	7,527	10.1	2,01,172	2.71	3.01	23,620	21,231	53,022	2.30	2.50	97,142	88,116	2,54,491	2.61	2.89
1,303	70,950	53,206	17,744	25.2	1,14,161	1.61	2.07	21,618	18,718	35,219	1.63	1.88	92,288	73,921	1,10,413	1.61	2.02
1,304	71,088	50,461	20,627	29.1	81,858	1.15	1.62	21,198	14,939	22,571	1.08	1.54	92,286	65,400	1,04,720	1.13	1.60
1,305	83,068	73,285	11,783	13.9	1,83,518	2.16	2.50	23,610	21,841	49,857	2.11	2.28	1,08,678	95,196	2,33,405	2.15	2.45
1,306	66,812	48,357	18,455	27.7	7,6181	1.14	1.58	18,466	11,705	19,143	1.05	1.66	85,278	60,062	55,024	1.12	1.59
1,307	69,239	3,170	66,060	91.9	4,215	.06	1.23	18,264	2,338	6,637	.36	2.84	87,563	5,817	10,912	.42	1.83
1,308	82,091	78,036	4,055	4.9	3,49,359	4.85	5.10	25,771	21,071	1,12,777	4.71	5.21	1,05,892	99,670	5,11,116	4.83	5.13
1,309	83,766	77,972	5,794	6.9	37,223	.41	2.07	25,844	6,390	10,582	.41	1.66	1,09,010	24,362	47,865	.41	1.96
1,310	77,706	65,173	12,533	16.2	1,71,865	2.21	2.61	24,962	22,487	68,466	2.74	2.93	1,02,658	88,060	2,10,331	2.34	2.73
1,311	85,202	65,122	20,080	23.6	1,52,839	1.56	2.01	27,865	20,025	45,450	1.63	2.20	1,13,067	85,717	1,78,280	1.58	2.08
1,312	89,799	64,919	24,880	27.7	1,25,113	1.59	1.91	31,393	25,913	46,031	1.47	1.78	1,21,192	90,832	1,71,161	1.41	1.88
1,313	48,549	8,410	40,139	82.5	10,661	.22	1.27	18,615	3,141	1,311	.23	1.36	67,161	11,591	14,978	.22	1.29
1,314	78,394	69,378	8,810	11.3	2,10,856	2.69	3.03	29,176	26,174	98,458	3.34	3.76	1,07,570	95,752	3,09,311	2.87	3.23
Total.	11,17,246	8,15,929	3,31,317	29	22,18,897	1.93	2.72	4,53,119	2,58,345	6,97,191	1.97	2.70	15,00,365	10,74,274	29,16,088	1.94	2.71
Average.	76,183 +5	54,305 +3	22,088	29	1,17,926 +12	1.93	2.72	23,511	17,223	46,179	1.97	2.70	10,00,024	71,618	1,91,406	1.91	2.71

NOTE—The figures of this Statement are not absolutely correct, as several Khasra are missing or damaged.

These figures which have had to be extracted from the Khasras have taken some time to compile; but the results are instructive.

It may first be remarked in passing that, after examining the figures of the *dofasli* areas collated for this period and also for a period of five recent more normal years, I find that ordinarily some three per cent. of the total *barani* area is double-cropped every year. This percentage is small, so that practically the whole *barani* areas may be considered as *ekfasli*, cultivated only in the autumn harvest.

66. Considering now the figures for the *Khalsu* area only, we find in the first place that the total area sown (column 2 of Statement VI.) has itself fluctuated fairly largely. It has ordinarily been below the assessed area at last Settlement—in fact, only in one year out of the fifteen years has the actual sown area been above that assessed, and then only slightly so; on the other hand, in eight years out of the fifteen it has been more than ten per cent. below the Settlement area.

Again, taking the average of the actual sown area of the period, 76,483 acres, the actual yearly areas have varied from 37 per cent. below to 17 to 18 per cent. above that average, or, 1313 *Fasli* being excluded, from 13 per cent. below to 18 per cent. above the average.

67. But these figures of total sown areas show nothing like the variations of the so-called *matured* areas and of the produce (columns 3 and 6 of Statement VI).

In the first place, the figures of columns 3 and 4 show that ordinarily of the total area sown, 29 per cent.; or roughly 30 per cent., per annum, produces no crop. But there is no doubt that much of the remaining recorded "*bûd*"—i.e., the so-called *matured* areas—have usually borne considerably less than full sixteen-anna crops. This is evident from the figures in columns 6, 7 and 8 of Statement VI.

Secondly, in individual years the Ajmer-Merwara failed area shows violent variations (columns 4 and 5 of Statement VI.) There is no question here of waves or cycles of progression and receding. On the contrary, the phenomena exhibited are those of violent and sudden oscillations, which give no index ratio for individual years.

Thirdly, the figures of out-turn may now be examined. But here again the variations are very large, while no index ratio is indicated. The variations of the average out-turn per sown area are enormous. This area, however, may be dismissed from further consideration. But even on the so-called *matured* area, the variations in the out-turn of produce are still very large and constant in their irregularity. Even with the two definite famine years 1307 and 1313 *Fasli* omitted, the variations in the average produce per *matured* acre still range from 80 per cent. above to 40 per cent. below the average figure of produce per acre on the whole produce.

68. Further *à priori* one might expect that some relativity might be discovered existing between the degree of 'failed area' and the average rate of out-turn per acre: that is, that the latter would be consistently greater in years in which the recorded 'failed area' was low, and consistently less in years in which the 'failed area' was high. The figures, however, indicate for most years the actual reverse of this expectation. Thus in 1301 *Fasli* the percentage of the recorded 'failed' area was 7.2 per cent. and the average produce per acre was 2.75 maunds. Next year, however, in 1302 *Fasli*, while the *nabûd* area was 10.1 per cent. the average out-turn was over 3 maunds per acre. Similarly, while 1305 *Fasli*, shows 14 per cent. of 'failed area' and 2.50 maunds per *matured* acre of produce, 1310 *Fasli*, with a percentage of over 16 per cent. of 'failed area' shows a produce per acre of 2.64 maunds: and 1309 *Fasli* and 1311 *Fasli*, with the widely-diverging percentages of 78.5 per cent. and 23.6 per cent. of 'failed areas' show, however, the same average out-turn.

69. Of course in the foregoing it is assumed that the figures of the Khasra have accurately recorded the true facts as regards the 'failed areas'—that areas really falling within this description have not, or not to any serious extent, escaped being recorded as such and not gone, to varying extents in different years, to swell the so-called matured area; that in fact the latter area does really represent only the areas on which crops have really matured. But this assumption may, I consider, be made safely enough. For, except in the variable villages, the actual revenue demand year by year has not usually depended directly on the entries of acres and produce made in the patwaris' field books, and there has therefore hitherto been no motive to manipulate the entries to the undue benefit of the cultivators and to the disadvantage of the State; and in the variable villages, where the yearly *barani* assessments have depended on the current Khasra entries, the latter have or ought to have been subjected at each harvest to the special check of the Superior Revenue Official, the Revenue Extra Assistant Commissioner. At any rate there is nothing to throw any real direct suspicion on the figures even in these villages. In the remaining fixed demand villages the actual Khasra entries have been used to base the actual demand on, only in a few years of bad seasons when it has been necessary to propose suspensions of the current demand. In these years it is possible that the figures of areas and out-turn may have been understated by some patwari. Nevertheless for present purposes, as we are not proposing to fix any assessment for the future on these figures, these occasional understatements would not be serious: the general relativities of the several figures remain fairly well the same.

70. The above Statements V. and VI. therefore, being taken as they are, are based on at any rate the best material that we have available. In the first place, the conditions indicated are, I think, not the same as in the Bundelkhand tract of the United Provinces (*vide* para. 2 of letter No. 4713 N/1-38 A., dated the 9th October 1901, from the Secretary to the Board of Revenue, United Provinces, to the Government of the United Provinces, among the enclosures to the Government of India's letter now under reference). These Bundelkhand conditions may be sufficiently well dealt with by a "periodical re-assessment of village totals based on calculations of the increase or decrease of established cultivation," the prescribed period of a quinquennium being the rule and intermediate revisions of the assessment the exception. But the problem in Ajmer-Merwara, on the contrary, is one of violent fluctuations from year to year, with mere irregularity as the only constant factor, to which the above Bundelkhand system offers no solution.

71. Secondly, the figures show that mere cultivated area alone in Ajmer-Merwara means nothing apart from produce. Thus in 1305F, 85,068 acres sown gave 73,285 acres with a so-called matured crop: but in 1311, 85,202 acres, *i.e.*, roughly the same sown area, gave 65,122 acres matured area only: and in 1312 *Fasli* 89,799 acres sown gave only 64,919 acres matured. In 1309, 83,766 acres sown gave only 17,972 matured, while in 1314, 78,894 acres sown gave 69,578 acres matured. Similarly, while in 1310 *Fasli* 65,173 matured acres gave 1,71,865 maunds of produce, in 1311 *Fasli* 65,122 matured acres gave only 1,32,839 maunds; and so on. In 1315 *Fasli*, last autumn, again, in the expectation of a good harvest, a very large area of *barani* crops was sown. The rainfall, however, ceased abruptly, and the crops on the whole *barani* areas proved practically a total failure, *i.e.*, very large area, but no produce.

72. The final suggestion made by the Government of India in para. 7 (iii) of their letter is that: "...the circumstances of the dry assessments in Ajmer-Merwara might be met by a system of assessment under which the revenue should be fixed in the ordinary way, but at a figure somewhat higher than would be adopted under the ordinary rules for suspen-

sion and remission, and the collections for each harvest should be subject to such remissions from the total due as may be thought advisable for the tract or village concerned under a set of rules to be prepared by the Settlement Officer."

This suggestion of an assessment for dry cultivation still on a fixed basis, however, follows in the Government letter upon certain criticisms that have been levelled against the fluctuating system of assessments which has hitherto prevailed in certain villages in Ajmer, and upon a recommendation for its entire abolition made finally by the Hon'ble the officiating Chief Commissioner of Ajmer-Merwara, in his letter No. 4-C., dated the 1st January 1907. In consequence of that representation the Government of India state that they are content to accept, under certain conditions, a fixed assessment on the dry cultivation.

73. But I do not read the remarks of the Government of India on this question to be a final pronouncement (*vide* para. 9 of their letter), and in this view, I think that the whole question of the assessment of the dry cultivation may still be considered to be an entirely open one.

For, in the first place I personally find myself unable to agree that the present variable system in Ajmer-Merwara has been a total failure. My reasons for this dissent are stated in a "Note on the present variable system of Village Assessments in District Ajmer," which is attached to this report as Appendix III, to which I would request a reference. My views on this matter being as recorded in that Note, I do not think that the principle of a fluctuating assessment even on dry cultivation need or should be given up.

On the contrary, I am very strongly of opinion that it should be retained; that the circumstances of the Ajmer-Merwara, as disclosed in preceding paragraphs of this report, are such as to call for a real fluctuating system of assessing dry cultivation even more forcibly than any other soil. I mean that a thoroughgoing fluctuating method of assessing *barani* lands is really the best suited of all for Ajmer-Merwara, and that there is no reason why such a system, if its details and procedure are properly devised, should not work without any more difficulty than is ordinarily incidental to such assessments.

74. We may first consider the system suggested in paragraph 72 above.

With such a system we should of course take a standard area, and with reference to this fix a standard revenue demand. This standard area would necessarily be a high one, in fact a maximum, representing the area of some good year, or the average of the areas of the better years of a period. This standard area also would of course be fixed on the figures of matured areas and represent a standard matured area inasmuch as, for considerations already indicated in preceding paragraphs, what counts here, so far as areas are concerned, is not mere area, but the acreage that matures. We should then provide by rules for remitting portions of this standard revenue every year in which the circumstances of the *barani* cultivation were adjudged to be less favourable than those of the standard year.

75. The rules, however, for determining this portion to be remitted, that is, the assessment rules, might take several forms.

Thus we might prescribe that the relativity of the particular harvest to the conditions of the standard area should be determined on the basis of areas alone—matured areas of course but still areas—'matured' being, say, defined as that which, in accordance with the hitherto prevailing practice in Ajmer-Merwara (*cf.* rule 16 (2) of the Irrigation Rules on page 438 of Volume H to L, Ajmer Regulations) gives a crop which is not less than a four-anna crop.

This would be the simplest procedure possible under this system.

The rest of the process would also be simple: all that would be required would be either a simple rule similar to that now existing under the

present variable village system, viz., rule 20 on page 521 of the Volume H to L, Ajmer Regulations, or one embodying for immediate remissions the sliding scale of abatements of the demand given in the district's ordinary rules for the suspensions and remissions of revenue.

76. No less procedure than this just sketched could, I think, be devised: it represents a minimum for what is required. And in other portions of India, certainly, the relativity of crop out-turn to the 'normal' is judged, without precise and detailed reference to fixed standards of average crop yields, by a summary estimate made by the eye and the observer's general impressions, and the crop is said, straight off, to be a six-anna or an eight-anna, or a ten, or twelve-anna crop, or whatever it may be, without further testing. And there is no doubt that an observant eye, after some training, can be trusted to suggest estimates of the out-turn of crops, on particular definite areas, which would be found to be reasonably close to the actual out-turn tested by actual weighment and comparison.

But elsewhere these crop estimates have ordinarily to be made by this summary eye method only occasionally; they are not required to be made at each harvest: they are the exception rather than the rule.

In Ajmer-Merwara, on the other hand, if the precarious uncertain weather conditions of the past are to be assumed as likely to recur in the future, and we are bound to make this assumption, the years whose conditions will reasonably closely approximate to those from which our standard area (para. 74) is deduced will be comparatively few, while the years below our standard will be many. Remissions of portion of the standard revenue on dry cultivation will certainly be the rule and not the exception. Not only this, but we could not really confine our crop estimating to these years only in which remissions are given. We must, on the contrary, continue to make our crop-estimates invariably in every year, good, bad and indifferent alike: for it would not be until we had gone through the same process as in any other year that we could say that the crop is a 12, 13, 14, 15 or 16-anna crop, or that the year is a good one and no abatement from the standard revenue is needed.

Conditions in Ajmer-Merwara are thus reversed. The determination of the revenue-paying character of the season is required to be made every year at each harvest.

77. As, however, this process of crop-estimating must thus be a regular rule at every harvest on the *barani* lands, and much greater accuracy of results can be obtained without any material increase of labour, I think we ought to try to make this process more exact.

This can be done by making the assessment rules provide for fixing definite standards of the normal yields per crop representing the average amount of out-turn ordinarily produced per acre of each crop, and by then comparing the estimated maundage out-turn of the actual crop under observation with the standard out-turn on the area of that crop as calculated by applying the normal yield figure to that area. The ratio thus obtained could then be expressed in terms of annas of the rupee, if necessary, and the remission calculated according to the limits set by any scale for remissions that we may devise (*vide* paragraph 7 (i) of the Government of India's letter), or, the actual revenue to be demanded could be taken as that fraction of the standard demand represented by the actual crop out-turn in maunds to the standard total yield. For example:—

A plot of 4 acres is sown with wheat, the normal yield per matured acre of which is, say, 10 maunds.

The actual crop out-turn on the four acres is estimated and recorded in the Khasra to be 30 maunds only.

The standard total yield in maunds is $4 \times 10 = 40$ maunds, which represent a 16-anna normal out-turn on this area of four acres.

The actual out-turn being 30 maunds, its ratio to the 'normal' expressed in terms of annas of the rupee, is $30 : 40 :: 16$, that

is, it is a twelve-anna crop : and if we have a scale in which a crop of twelve annas or more of the normal is given no remission, this area must pay the full unabated revenue.

Or, if we have no such scale with these definite limits, but the sanctioned method is that the demand to be made in each case is to be determined by the proportion of the actual out-turn (x) to the standard total yield (y), then the demand (D) to the standard revenue (R) is represented by the following, $D = \frac{x}{y} R$.

78. The procedure thus sketched in the last paragraph, which seems at first sight perhaps to complicate matters by introducing an extra step between estimating the out-turn in maunds of the actual crop and expressing it in annas of the rupee to the normal, on the contrary (1) really very much simplifies matters in the end when the total village dry assessment has to be worked out, and (2) ordinarily guarantees much greater accuracy in this figure as compared with the procedure stated in para. 75.

For, while by the process of para. 75 the crop on each plot can of course be at once roughly and readily estimated at so many annas to the rupee easily enough, what of similarly estimating the total dry cropage in the aggregate for the whole village?

For the total dry assessment for the village as a whole has in any case to be worked out.

This, under the procedure of para. 75 can only be done in either of two ways.

First, by working out the demand, as it were, for each field separately, and then adding up these separate field demands :—e.g., field No. 65 has a crop estimated at a ten-anna crop ; the proportional demand on it will be (say) 12 annas of the standard revenue (Rs. 4-0-0), i.e., Rs. 3-0-0, or $\frac{10}{16}$ ths of Rs. 4-0-0, i.e., Rs. 2-8-0.

Field No. 74 has a crop estimated at 7 annas, and its proportional demand will be (say) eight annas of the standard revenue (Rs. 2-0-0) : i.e., Re. 1-0-0 ; or $\frac{7}{16}$ ths of Rs. 2-0-0, i.e., Re. 0-14-0, and so on, the village total being thus, Rs. 3-0-0 plus Rs. 1-0-0 (or Rs. 2-8-0 plus Re. 0-14-0), *plus plus plus* for all the individual plots ; or

Secondly by making a rough-and-ready estimate for the village as a whole from the general run of the individual field estimates.

79. But the first way, though logically sound in providing a means whereby the relief granted may be, at the distribution of the total demand announced for the village as a whole of over the individual Khatas, spread with the maximum of equity over the actual owners of the fields, so that the owner whose field bears hardly half a normal crop pays at most only in the proportion of half the standard demand, while another owner whose field bore a 12 or 16-anna crop pays up to the full standard demand, yet would involve, before the actual village total dry assessment can be worked out, an immense amount of labour—certainly in the case of some of the huge villages of Ajmer-Merwara. It is really a close approach to an out and out ryotwari system. But if such a ryotwari system were to be contemplated we ought to go still further, I think, and fix standard average yields for all crops, on which our rates would be based, and then determine the actual out-turn character of field by direct reference to these standards, as accurately as possible, and not leave this to be done loosely by a mere eye estimate. This addition would make the process of assessing still more laborious, but would be really necessary for accuracy's sake.

This method, however, though it may perhaps be worked up to in the future if need appears, I cannot recommend for immediate adoption. I am already proposing in this report much that will be new, and it will be well not to advance too far all at once, but to allow the revenue staff and the villagers time to settle down first to the idea of a fluctuating system of assessments all round, and to grow accustomed to its working on a simpler basis. We should be content, I think, for the present with a system that will proportion the total demand for the village as a whole to the total

crop out-turn of the village, as closely as possible, that is, get the total assessment for the village fairly right to start with, and that will work this out with the maximum of speed and simplicity.

80. And the second way referred to in para. 78 of arriving at the total dry assessment for the village as a whole, even if after all it was not merely sheer guesswork, would give at any rate only a very general estimate. The individual *barani* fields growing crops may amount to several thousands in a fairly large village. Some will be recorded as 5 annas, some as 8, some as 11, some as 7, some as 10, some as 6, some as 13, some as 9, some as 15, some as 12 and some as 16 annas. But can anyone, without further aid, however conscientious may be his desire to adjudge correctly, make any really reliable total estimate of the general crop out-turn over these several thousands of fields, as if they were one, over the village as a whole? The estimate might, or might not, be reasonably approximately correct, but this would represent high-water mark of this method, and in many cases the estimate might be seriously incorrect.

81. By the procedure indicated in para. 77, on the other hand, the working out of the village total dry assessment is comparatively a very quick and simple matter, which may further make the additional claim of a high degree of accuracy.

Thus, the estimated out-turn in maunds of each field is already recorded in the Khasra—this would still suffice; no time should be spent in recording, for the present at any rate, the 'anna-age' of any individual field. We need only consider the total of all areas under each crop and then the totals of all crops in the aggregate. The crops grown on unirrigated soil at any one harvest in any one village are not numerous, less than half-a-dozen usually. The *girdawari* being over, the patwari would make a short abstract of its entries according to crops: under each crop he would add up the area and recorded out-turn of each field bearing that crop, thus arriving at the village totals of area and out-turn of each crop.

These are, let us say, 50 acres of *jowar* with 100 maunds of produce, 40 acres of *bajra* with 100 maunds, and 20 acres of *mung*, *moth* and *kulath* with 30 maunds.

All that then remains for the assessing officer to do is to apply the standard average yields—for *jowar* say $2\frac{1}{2}$ maunds per acre, to these 50 acres of *jowar* obtaining a standard total yield of 125 maunds; for *bajra* 3 maunds to the 40 acres, obtaining 120 maunds; and for the *mung*, *moth* and *kulath*, 2 maunds per acre to the 20, obtaining 40 acres, and with the total of these figures (*viz.*, 125, 120, 40 = 285 maunds) to compare the total aggregate of the actual out-turn, *viz.*, 100, 100, 30 = 230 maunds. The result then emerges automatically as $\frac{230}{285}$ ths, of the normal, or, if desired to be so expressed, thirteen annas in the rupee. The total dry assessment for the village as a whole is then practically complete, and is correct.

There is, at any rate, very much more certainty in this method than in the undisguised guess-work method of the preceding paragraph, while it is really much simpler than the *quasi ryotwari* system of paragraphs 78 and 79. Moreover, not less than that system, it still provides readily available all the material needed for making a field-to-field, or holding-to-holding distribution of the total village dry assessment, if this is necessary. The entries of the out-turn (x) against each field is already entered in the Khasra, and all that is required is to apply the standard average yield to the area of the field or holding, obtaining (y) and then to apply the ratio $x : y$, or the fraction $\frac{x}{y}$, to the resultant of the field's area multiplied by the full rate. But in the meantime it saves much labour and time from being needlessly spent when this distribution is not required.

82. Thus, to summarise the position now, it comes to this, I think, that whatever system we have for the dry cultivation other than an ordinary rigid demand based on mere areas, irrespective of out-turn, reversion

to which is not to be contemplated, we must accept the necessity (1) of having to examine at every harvest the current conditions of the dry cultivation and to compare them with our standards, whatever these may be, and (2) of having to fix, and to use at every harvest, standards of average normal yields, so as to arrive at as accurate an idea as possible of the relativity of the actual out-turn to standard conditions.

But this being so, all that is further required to work out a suitable, equitable demand for each harvest can now be accomplished in a much more simple, direct, and effective way, I think, than by a system involving a standard revenue accompanied by remissions.

83. That is, why not have a fixed *barani* rate, determined with reference to the average out-turns of the crops on the *barani* soil, apply this to the actual matured or assessable area recorded for the harvest, obtaining (x), and take as the demand simply and at once that proportion of (x) which is represented by the ratio of the actual recorded out-turn on the recorded matured or assessable area to the standard total produce on that area? *E.g.*, the rate is 8 annas per acre : the area is 50 acres : actual out-turn is 100 maunds. The standard average yield per acre is $2\frac{1}{2}$ maunds, and the standard total yield is 125 maunds. Then 50 times 8 annas (Rs. 25) is the full maximum revenue possible if each of the 50 acres gave a fully-matured 16-anna crop according to the standard average yield. The actual demand to be assessed is, however, $\frac{100}{125}$ times 25 = Rs. 20. The above process is very simple, direct and very quick, and goes as close, I think, as any system that it seems possible to devise, to truly proportioning the demand to the actual out-turn.

Why fetter ourselves, then, at all with a standard revenue and remissions? This would not only add a cumbersome complication in the system, but impose an anomaly on the system for which I see no necessity.

84. For our declared profession being in principle to take only a certain portion of the actual out-turn and in practice to work up to that principle as closely as practical mechanical difficulties will allow, the fact of a remission being necessary at all means strictly that the sum we have to remit was never really due at all, and could not therefore have been ever equitably demanded. A system that requires such remissions therefore reduces us to the solemn farce of magnanimously remitting what we are, by the act of remission, admitting that we were not entitled to.

The simple system indicated, however, avoids this: it dispenses also with the necessity of much office work in drawing up remission statements and in correspondence to obtain sanctions and the like: it can work automatically and save all concerned much time as compared with a system based on a standard demand. Lastly, there is no necessity to fix standard areas; we can go simply by the actual area from year to year.

85. In short, the simple system outlined in para 83 seems to me in every way preferable to that suggested in para. 72 or to any modified fixed system, and I strongly urge its adoption. It will be comparatively simple to work, but, more important still, it will, I think, be more effective than the others discussed in dealing successfully with dry cultivation in Ajmer-Merwara.

Further, it has incidentally the great additional merit of allowing the dry cultivation to be assessed by exactly the same method as the *talabi*, *abi* and *chahi* areas, thus avoiding the practical disadvantages of having more than one system of assessment at work.

For the system now proposed for the dry cultivation is exactly the same as that which is proposed for all *talabi* and *abi* areas and also for *chahi* areas.

THE SYSTEM PROPOSED.

86. The system of assessment which I wish to propose for appli-

cation to cultivation of all four soils throughout the tract may now be briefly stated.

I propose, first, to take as the basis the essential method of the simple system now prevailing upon the Ajmer-Merwara first-class tanks, and upon canal-irrigated lands elsewhere, and to assess by fixed crop-rates applied to the actual areas of the harvest on all soils.

But I propose to modify the above by (a) providing that in future the areas to be assessed shall be, not the total sown areas, but the areas that give a crop, (b) fixing for each crop, irrespective of the soil on which it is sown, or of the source from which it is irrigated, an all-round standard average yield of produce per "matured" acre—so that, on the standard furnished it can be easily and directly seen whether a crop area is fully matured according to that standard or, if not fully matured, what is its degree of maturity with reference thereto, (c) fixing the assessment rates in relation to these "standard average yields," (d) providing that the full revenue given by applying the applicable assessment rates to the actual assessable areas at any harvest, shall be taken only when their total actual out-turn is in the aggregate not less than the aggregate total "standard" out-turn indicated by the standard average yield over the whole aggregate assessable area, and that if the aggregate actual out-turn is less than this the revenue demand shall be proportionately lower than the full possible revenue. Thus, to take a brief simple example:—

A village shows for the *Kharif* harvest a total area of 50 acres of, say, maize. The standard average yield per matured acres of maize is, say, ten maunds; the revenue rate is Rs. 3.

If the actual recorded out-turn for the 50 maunds is then 500 acres, the demand will then be the full revenue, viz: $50 \times \text{Rs. 3} = \text{Rs. 150}$.

But say that the actual out-turn is only 400 maunds; then the actual demand will be $\frac{400}{500}$ or $\frac{4}{5}$ ths of Rs. 150, i.e., Rs. 120 only.

Secondly, I propose that the rates be simply rates per classes of crops irrespective of soils, not rates per classes of soil. I propose to group all crops on all soils into three classes according to their average relative values and fix an acreage rate for each class of crop.

87. The above really states in essence the whole system proposed.

It is, however, more fully described in detail in a draft set of rules which I have prepared provisionally for regulating the assessments under it, and which are attached to this report as Appendix IV., to which I would request a reference.

But there are several matters connected with the proposed system to which attention requires to be drawn, or which need explanation. These are (1) the question of the "assessable" and the so-called "matured" area and of the "standard average yields," (2) the question of the character of the rates, (3) the question of the scale and standard for fixing the actual demand in relation to the full possible revenue given by the rates applied to the whole aggregate assessable area when the latter is only partially 'matured,' i.e., while the out-turns are below the 'normal,' and (4) the question of the method of fixing the actual total assessment.

88. First, as regards the "assessable" and "matured" area. Hitherto in Ajmer-Merwara under the rules in force the crop areas have been recorded under two classes: (a) *nabûd*, that is, those which give no grain out-turn at all, and (b) *bûd*, all remaining areas. There has been no attempt to specify these *bûd* areas further, which are thus in the aggregate for any one crop a congeries of component areas of varying degrees of maturity, in which there is no indication of these varying degrees, so that it is practically impossible to deduce from the only actual information available any exact standard of ordinary average real "failure" for each crop or for each soil, whereby to adjust any Ajmer-Merwara "*bûd*," or so-called matured, area of the past up to the full standard of a 16-anna fully-matured area.

This question of fully-matured and partially-matured areas with the

other question depending on it, *viz.*, those of standard of yields and assessment rates, is, however, discussed at some length in paragraphs 139 to 144 of this report in connection with the question of "crop yields and standards of yields." For the considerations there given, I propose, first, to take as standards of yields not "standard normal yields" fixed with reference to fully-matured areas but "standard average yields" representing the averages over large areas and over a period (*vide* para. 142) of the actual out-turns on the above "*būd*" areas in the past.

Second, it follows that the actual assessment rates that will be proposed have reference to these "standard average yields," and will not be higher rates having reference to the higher standard normal yields.

Thirdly, I propose therefore to take the above "*būd*" areas simply, exactly as at present recorded, as the "assessable" areas for the assessments under the system proposed. The patwari as hitherto will, under the Girdawar's check, continue to record a field which gives no grain out-turn at all as "*nabūd*," but to record every field with anything over that as "*būd*," and to estimate and record its produce out-turn in maunds just as at present. These "*būd*" areas with their out-turns will then come straight from the Khasra on to the assessing Khataunis (*vide* rule 13 of the proposed draft rules of Appendix IV.). The system thus introduces so far no complicating novelty for the patwari.

89. The main considerations for these conclusions are, as indicated in the paragraphs 139 to 144 referred to, of course the want of information on which to work out from the "*būd*" areas recorded in the past the true "fully-matured" areas, and the difficulty in fixing rates with reference to these and the "standard normal yields." I may say here that in my opinion all the practical advantages lie, as circumstances are at present in Ajmer-Merwara, with the proposed method of taking the proposed "standard average yields" and rates based on the "*būd*" areas. These are easily and certainly fixed; and they are based on actual facts (as in the Khasra against every field which is recorded as '*būd*' has been entered its estimated produce in maunds) representing the averages of actual out-turns over a number of years in the past over large areas, and can thus be relied on with some confidence. The material for fixing "standard normal yields," on the other hand, is not so certain, while for fixing rates to suit these "standard normal yields" the materials are even more scanty and uncertain. And even if we fixed some such rates, yet owing to the want of the true "matured areas" we should not be able to make any proper estimate of what revenue these rates would bring in.

Further, the circumstances of Ajmer-Merwara are such that the average run of crop areas in any harvest are not up to the 16-anna fully-matured standard. With the higher rates, therefore, involved by the standard normal yields on 16-anna fully-matured areas, the actual revenue demands would regularly be very much below the ostensible full revenue given by the rates applied to the actual areas—our rates and standards would, in fact, appear always to be much too heavy for the actual facts, and if we obviate this to some extent by first manipulating the areas before applying the rates—*e.g.*, by counting say 5 partially-matured acres as 4 fully-matured acres, yet this would introduce practical difficulties for all concerned—and finally these high "standard normal yields" and high rates, and the seemingly high and seldom-ceasing abatements shown on the assessing statements, would convey an impression of undue severity in the system of assessment, an impression which, however false, might none the less unfavourably prejudice the cultivator. The "standard average yields" and lower rate method, on the other hand, though possibly not so exact in theory, is much more free from such practical difficulties and is simpler to work: and it will reduce the number of novelties being introduced all at once into Ajmer-Merwara, while it will, I think, suit its conditions perfectly well enough, until at the next revision, when every one; villagers and staff, have grown accustomed to a complete fluctuating

crop-rate system such as now proposed, more exact standards can be introduced.

90. By the second question mentioned in para 87 I mean the question as to whether these should be rates *per soil* or rates *per crop* irrespective of soil.

This question has, however, been already referred to in paras. 61 to 64 in connection with the *chahi* assessments, and for the reasons given there I propose without hesitation to assess by a simple set of rates per crops irrespective of soil. The question is, however, raised here in view of the possible objection that, as *chahi* soil ordinarily produces more than *talabi* soil, and the yields of a crop sown on *abi* or *barani* soil is usually less than when sown on *chahi* or *talabi*, an all-round rate per crop irrespective of soil would either be too high for the *talabi* or the *abi* or *barani* soil or too low for the *chahi* soil, or both too high and too low at one and the same time.

So far as *abi* or *barani* soils are concerned, however, the lower out-turn on these is allowed for by the standard average yield factor. According to the degree by which the actual out-turn falls below this standard, *protanto* the actual demand falls below the revenue given by applying the crop rate to the crop area. The question really concerns only the *chahi* and *talabi* soils therefore.

91. One solution of this could be found—without setting up separate standards and rates for *chahi* and *talabi* soils—in fixing the rates for irrigated crops with reference to *talabi* soils alone, and then adding a varying amount to those rates for similar crops grown on *chahi* soil. This would, however, first increase the labour of preparing the assessing *Khataunis* and the work of assessment; while I do not think that it would do as an all-round working method, as in many seasons the *chahi* average out-turn would not be greater than the *talabi* in any particular village. A preferable way would be to use the device of imposing a small additional rate—called elsewhere a “well advantage” rate—on each well: that is, a few annas on each acre actually irrigated from it, irrespective of other considerations.

I had, in fact, for long thought of proposing to use some such device as this, and, subject to the Hon'ble the Chief Commissioner's sanction, I will, in fixing the rates to be applied to individual villages, make some such differentiation in the rates to be applied to the *chahi* and *talabi* soils wherever I think that the village cannot be adequately assessed otherwise without this treatment; but as a general method, I deprecate it. The standard crop rates proposed in this report are, it is true, based on the average values of the average out-turns of both *chahi* and *talabi* soils combined together, but these rates can be varied to suit the circumstances sufficiently well of many individual villages—that is, in a village where the first-class crops are all irrigated from wells, the crop rate can be suitably enhanced: in another village where tank irrigation predominates and the *chahi* area is small it can be slightly reduced, while in other villages there is, under the fluctuating system proposed, always the standard average yield working to correct matters, so far as the total assessments are concerned. That is to say, the *chahi* area is perhaps producing more per acre, and the *talabi* soil less, on the average, than the standard average yield, though both are paying the same crop rate. But in this case, as in most, if the *talabi* out-turn is depressing the actual average out-turn to any extent, and this depression would, if considered alone cause a reduced demand, on the other hand the higher *chahi* out-turn is operating to counteract this depressing influence, and by pulling this actual general average up again to produce on the combined areas, by the one rate approximately enough, the same total revenue at all events as would be produced by a system with a separate rate and a separate out-turn standard on each of the two soils.

92. And, after all, is this absolute detailed accuracy in distinguish-

ing between *chahi* and *talabi* soils really practically necessary—especially when to provide for it much greater and recurring complexity would be introduced into the system and the work of assessment?

We have, however, to consider this equally important point—the actual working of the system proposed. From this point of view the simpler system proposed is much preferable, and its all-round greater simplicity and ease of working outweighs the slight loss of some degree of greater accuracy possible under the much more elaborate systems.

The system proposed groups and assesses all irrigated crops together as one simple class, irrespective of the source of irrigation by a single rate—an immense help and saving of labour in working harvest by harvest an all-round fluctuating set of assessments on a large number of villages.

93. As regards the third question stated in para. 87, I personally advocate the $D = \frac{x}{y}R$ method indicated in para. 77; and the proposed draft rules of Appendix IV., therefore, prescribe this method only.

The Government of India have, for *talabi* and *abi* soils, in para. 7 (i) of their letter 417-42-2 of 26th February 1907, suggested the other more usual method. But this obviously, unless we have a very large number of gradations in the scale, gives results which are approximate only, without really facilitating work as compared with the method advocated. Thus, under this graduated scale system we have—in addition to working out the standard of total yield on the area in question (y) of para. 77, and then applying to it the actual out-turn (x)—to further translate this into annas of the rupee and then to compare it with the scale, to find the limits within which it falls before we get the figure on which to calculate the actual demand. But why not apply $\frac{x}{y}$ at once, without this extra trouble?

The former method ($D = \frac{x}{y}R$) is at once not only more simple, but also proportions the demand to the actual out-turn exactly, while with the other method the proportionment is only approximate.

94. In regard to the fourth question stated in para. 87, I propose following what I have said in para. 81, that, as an essential part of the system proposed, the assessment on a village shall be determined for the village as a whole on its total figures. The several assessable crop-areas and the actual out-turn of each crop produced at any one harvest will be first arranged in their appropriate columns of the assessing *Khatauni* under the crop-class to which it belongs, and for each crop-class the aggregate total assessable area and actual out-turns of all crops in that class will be totalled. The total standard yield for each crop so entered will also then be calculated by applying the standard average yield to the actual assessable area of the crop, and also entered and totalled for the whole class. Similarly for the village as a whole the several aggregate actual out-turns of all the crop classes will be totalled to give the aggregate total (x) for the whole village and compared with the aggregate total of the total standard yields (y) of all the crop classes for the whole village.

It is only when this process is complete that I propose that it should be determined whether the actual demand for the village is to be the full possible revenue given by the crop-class rates on the total assessable area, or whether it is to be something less than that full possible revenue. I mean that if (x) is equal to (y) the full revenue on all crop-classes should be taken, even though in one, or more, of the crop-classes the aggregate actual out-turn of all crops in it may be less than the aggregate total standard yields. Only when (x) is less than (y) should an abatement from the full revenue possible be made, and this abatement may be made in respect of the crop-class only in which the deficiency occurs.

95. Thus, in the case of Example I of Rule 6 of the draft Rules in Appendix IV., I propose that the actual demand on the village be the full possible revenue given by the assessable areas and the rates, viz., Rs. 212-8-0, and that the assessment on each crop-class be the fullest

possible one, although the out-turn under Class I is below the average, on the ground that the deficiency here is made up by the higher out-turns on the other two classes.

I mean, that in such a case it should not be—

				Rs.	A.	P.
I.	480 (50 × 3/0/0)	...	120	0	0	
II.	10 × 1/4/0	...	12	8	0	
III.	100 × 0/8/0	...	50	0	0	
Total			...	182	8	0

But in the case of Example 2 of that Rule 6, the total aggregate of the actual out-turn is less than the aggregate standard yields for the village as a whole. Here a demand less than the fullest possible revenue of Rs. 212-8-0 should be assessed; and the necessary abatement should be made for the class in which the deficiency of out-turn below the standard occurs. Thus, in this case, the assessment will be—

				Rs.	A.	P.
I.	480 (50 × 3/0/0)	...	120	0	0	
II.	10 × 1/4/0	...	12	8	8	
III.	220 (100 × 0/8/0)	...	44	8	0	
Total			...	177	0	0

96. That is, we should not look simply to the figures of any one crop-class by itself alone and assess it separately without first considering the character of the total out-turn of the village as a whole.

Still less, I think, need we consider each crop separately—that is, even the aggregate areas and out-turns for the whole of the one crop. In one crop-class there might be half-a-dozen separate crops, the aggregate figures of two of which were below standard, two above it, and two equal to it. We should not, however, work out separate demands for each of these. The extra labour involved is not unnecessary. It is quite sufficient, in order to give an equitable assessment, to consider the crop-class as a whole.

Still less, therefore, can we contemplate assessing on the out-turns of individual fields. This would introduce immense elaboration, and cause the process of assessment to consume enormous time and labour. What has been already said in paragraph 79 applies here also. From the point of view of the individual cultivator, no doubt, an assessment made field by field would ensure that the assessed demand from each cultivator was in full measure in exact proportion to his own out-turn. We cannot, however, go so far as this at present. To a large extent as regards individual fields, the deficiency of out-turn on one field will be adjusted by excess on another. We should be content, for the present at any rate, to forego all the higher refinements that are not absolutely indispensable for assessing correctly the village as a whole. The system proposed will, I think, assess the village as a whole correctly, proportioning its demand to its actual out-turn, and this seems to me to be as far as it is safe to go for the time being.

97. For this reason, the course suggested by the Government of India at the end of paragraph 7 (i) of their letter, viz., that the patwaris should record the character of the crop on each field as being either *nil* or $\frac{1}{4}$ th or $\frac{1}{2}$ or more, of a normal crop, is not now necessary. The actual maundage of the produce of each field, as estimated, is already recorded and will continue to be so recorded, and this maundage entry is sufficient for all purposes that are likely to arise. It is certainly sufficient for our actual work of assessing; and, if the circumstances of the individual field have ever to be considered, e.g., in distributing the total village

assessment over the individual cultivators by the relative out-turns of the fields, this recorded maundage entry has only to be referred to the figure given by the field's area multiplied by the "standard average yield" of the crop to indicate the ratio of out turn of the field to the normal. And as regards the remaining portion of their recommendation, viz, that the rate applied should be reduced to $\frac{1}{2}$ for crops of $\frac{1}{2}$ the normal or less and to nothing for crops of $\frac{1}{4}$ or less, the spirit of this, the system proposed, will give due effect to, in the manner already indicated (paragraph 93).

98. I may here explain how it is proposed to group up the crops grown in the tract.

The crop
classes, and
rates.

In Class I. are included :—

Sugarcane, Melons, Lucerne Grass, Red Pepper, Tobacco, Garden Produce and Roses; Maize, Cotton, Wheat, Barley, Rice, Barley and Wheat, Wheat and Gram, Indigo, Poppy, Vegetables, Linseed, certain spices, such as Zira, Dhania and Methi, and Lahson and Singhara.

In Class II. are included :—

Gram, Bejhar, Mustard, Carrots, Hemp and a few other miscellaneous crops occasionally grown.

In Class III. are included :—

Jowar, Bajra, Mung, Moth, Kangni, Til, Gwar, Chanoula, Marua (Mandua), Kulath and Urd.

These classes have not been arbitrarily selected. On the contrary, the grouping has been made from the statement of produce and net assets after the valuations of all the crops shown in the Khasra Jinswaras had been worked out. In this statement (given as Appendix XV. to this report) the average value per acre of each crop was worked out; and it was on the comparison of these average values that the crops were then grouped into the three classes indicated, crops of like value being, within certain limits, classed with like.

Class I. contains the crops of both harvests that are ordinarily grown by irrigation: Class III. the crops grown ordinarily on *barani* soil without irrigation, in the *khurif* harvest: and Class II. certain crops grown on *abi* or *barani* soils mainly in the *rabi* harvest, with some miscellaneous crops.

Thus the areas under crops of Class I. correspond to some extent with the *Chahi* and *talabi* areas: those under Class II. with the *abi* areas, and those under Class III. with the *barani* soil. The correspondence is, however, approximate only.

These three classes now proposed are sufficient for all practical purposes. They cannot, I consider, be reduced to two profitably: On the other hand, the first seven crops enumerated in Class I., viz., Sugarcane, Melons, Lucerne grass, Red pepper, Tobacco, Garden Produce and Roses, might have been grouped into a sub-class by themselves of high-value crops, apart from the ordinary food crops and cotton and poppy. And indeed I propose in respect of some of these, in some of the circles, to enhance the ordinary first-class crop rate. But for the present these are included with the other crops of the first group in order to avoid having four classes of crops.

The present three classes contain all the crops at present known to be ordinarily grown in Ajmer-Merwara. If in the future any new crop is taken under cultivation it can be given a place in one or other of these three crop classes, the collector determining its actual class by estimating its relative value to the other crops.

99. The actual rates for assesment that are proposed are set forth later on, after certain other matters connected with the working out of the half net assets have been dealt with.

But we may now recapitulate the several points of the system of assessment proposed. These are :—

- (1) All soils will come under the same one fluctuating system : every village (except any exceptional ones given a fixed assessment) will be assessed at each harvest.
- (2) The crops are grouped into three classes according to their value, and all lands are assessed simply at an acreage rate according to the class of crops grown, irrespective of class of soil and the source of irrigation.
- (3) The revenue is determined simply by applying the crop rate to the assessable crop area.
- (4) The “assessable” crop area is the local *bûd* area with which the patwari, villagers and officials are already familiar.
- (5) The usual average out-turn per acre of ordinary *bûd* area for each and every crop has been ascertained and tabulated as “standard average yields.”
These “standard average yields,” applied to the assessable crop areas, enable it to be seen at once how the actual out-turn of each assessable crop area, or group of crop areas, stands to the usual average out-turns per acre of ordinary *bûd* areas, whether equal, more or less.
For the sake of brevity, the multiple of the assessable *bûd* area and of the “standard average yield,” which represents this usual average out-turn, may be referred to as the “standard total yield.”
- (6) The full possible revenue for each crop class is simply the multiple of the total assessable areas of all the crops in the class and of the class crop rate; and the full possible revenue for the whole village is the sum of these multiples of the several crop classes.
- (7) The full possible revenue for the village is to be taken only when the aggregate actual out-turns on the aggregate assessable areas for the village as a whole is not less than the aggregate “standard total yields,” that is, the usual average out-turn on this amount of *bûd* area.
- (8) But if the aggregate actual out-turns for the whole village is less than the aggregate “standard total yields,” than the actual demand on the village will also be less than the full possible revenue.
- (9)
 - (i) The reduction, as compared with the full possible revenue, will be made in the crop-class, or classes, in which the aggregate actual out-turn is less than the aggregate standard total yield for that class.
 - (ii) The actual demand (*D*) for each such crop-class will be taken in the simple direct proportion to the full possible revenue (*R*) of the crop-class that the aggregate actual out-turn (*x*) bears to the aggregate standard total yield (*y*) of the crop-class, without reference to any further scale or standard. That is, the actual demand of the crop-class is found at once by the simple formula,

$$D = \frac{x}{y} R$$

It thus solves the problem of allowing for deterioration in holdings during the currency of a Settlement (*vide* para. 12 of the Government of India's Resolution No. 6-193-2, dated the 24th May 1906). If any land, whether field, holding or whole village, deteriorates and becomes incapable of bearing the better crops, the system automatically applies only to the rates for the poorer crops grown: or if, while continuing to grow the Class I. or Class II. crops the deteriorated soil allows only of a stunted produce, the reference to the standard average yields allows the rates to be reduced to the relativity of the actual out-turn. And if the land goes out of cultivation altogether, there being no crops, there is no rate and no revenue.

- (3) It offers a solution also of the now very important problem of how to assess *poppy* cultivation in Ajmer-Merwara.

If poppy is grown, it will pay the rate fixed for it in Ajmer district, the ordinary Class I. crop-rate: if it is not grown, the village will not be assessed on any poppy cultivation but will pay the rates only for the actual crops that it does grow.

And if an excise tax is placed on the opium produced, the revenue assessing crop-rate for poppy can be reduced proportionately, or, if the tax amounts to an impost which exceeds what would be levied as revenue on the land growing poppy if no tax existed, the revenue crop-rate for poppy can be remitted altogether and poppy be allowed to be cultivated free of land revenue, its produce being subject to the tax only.

- (4) Further, this crop-rate system will, while easing off the burden of the revenue *pari passu* with the stages of deterioration, automatically allow for expansion also on improvement, and will generally follow step by step all the varying changes in the capabilities of the villages of the tract. If a village advances, owing to increase of population, improved water-supply, larger stocks of cattle and manure, or other causes, and gradually grows the better crops in increasing proportion, the crop-rate system will concurrently take its legitimate toll of the improved resources, without creating any disturbing influences.

- (5) It will assess relatively correctly *ekfashi* and *dofashi* areas, discouraging over-cropping without due regard to proper rotation and consequent exhaustion and legitimately penalising double-cropping.

Incidentally, it gets over the difficulty met at the last assessment by Mr. LaTouche by the adoption of the expedient of what he called the "manured advantage." For the more lucrative crops on heavily manured soils, higher crop rates can, if necessary, always be fixed, and applied without disturbing the system of assessment.

- (6) It will also dispense with the necessity of separate rules for suspensions and remissions of revenue with all their attendant defects of delay or inaccuracy in their application, and of the depressing effects of outstanding arrears hanging for long periods over the heads of the cultivators. The demand at each harvest being proportioned to the actual out-turn, fixed automatically as it were and promptly at the moment of harvesting, there should never be any arrears, save possibly only those due to deliberate recusancy, and not to inability to pay.

(7) It will give uniformity instead of diversity. To have (a) a purely fluctuating system for tank lands of a rate applied to actual areas every harvest, (b) a mixed system of fixed and variable assessments on the wells and *chahi* cultivation, and (c) another fixed-standard demand with recurring remissions system for *barani* lands, would be an unpleasing, complicated, patch-work arrangement, which, if not producing confusion, would certainly not, I think, save any labour. With the constantly changing well capacities there would be much inspection work and frequent taking-off and putting-on, or proportionate reductions, of the well assessments with results in the end not approaching so closely, as the rate-on-irrigated-area-system, the aim of proportioning the demand to actual out turn; while, if the work were not kept up to date and remissions and reductions promptly made, the scheme would be defeated of its object. And as regards the *barani* cultivation, with any system purporting to proportion the demand to the out-turn, there must be, every year, examination of the *barani* statistics of areas and out-turns, and an amount of calculation of no less volume than under the all-round uniform system proposed.

(8) The proposed system should, on the other hand, keep down the volume of the assessing work both at Settlement and in every subsequent year as much as is possible with an all-round fluctuating system: first, no standard well areas need be worked out; next, the work of inspections will be reduced to a minimum; in fact only the ordinary crop entries of area and produce will ordinarily require the checking officer's attention on the spot in the ordinary way, while there will be no constant taking off and putting-on of whole, or partial, lump assessments on the wells.

(9) It involves the introduction of no new Khasra and not even any alteration in the existing form of Khasra. This all-important field register, with which the patwaris and villagers are now familiar, may remain unchanged: provided that the entries in this are properly and honestly made, the rest follows automatically.

(10) It will meet sufficiently well the case of the bitter, and other noxious-water, wells.

There are, especially in the Ajmer district, in the Rawasr circle largely and in some villages of other circles also, many tracts in which the wells have either bitter or what is called oily water. The latter has a very speedily defertilising effect upon the soil. In the brackish water wells the water runs through all degrees of saltiness or bitterness, from merely containing salts making the water "thick," as the cultivators term it, to being thoroughly impregnated with noxious salts. Under any fixed system of assessment the proper treatment of these wells is an awkward problem. Reduced rate could, of course, be fixed for them, but this does not satisfactorily solve the problem over a period of years. In the first place, many of these wells cannot be worked with any regularity even if there is water in them. Their lands must be left to lie every 2nd or 3rd year, in order to recover. But secondly, in many of the wells, the water, though bitter, is quite good for certain crops—other crops cannot be grown, e.g., maize or cotton,—but when the crops (generally *rabi*) which the water suits are sown, the out-turn is ordinarily

very good, and for such wells an ordinary *ekhasli* rate needs no reduction.

Under the system now proposed, when the well is used, if the crop out-turn is up to the standard the land will pay at the full rate fixed for the crop: if the out-turn, owing to the salt, is meagre, reference to the average yields fixed for ordinary crops will operate to reduce the revenue in proportion. If the well is not used and the land lies fallow, there is no revenue on it, or if it is sown with dry crops only, the dry crop-rate will be applied.

- (11) Lastly, it will deal effectively with the difficult general problem of wells and *chahi* lands—the well or *chahi* assessment will rise and fall automatically with the actual existing conditions.

If the well goes out of use and its *chahi* land grows only dry crops it will pay dry-crop rates only: if the land lies uncultivated it will pay nothing. If portion only of its area grows wet-crops only, that portion will pay a rate equal to a wet-crop rate and the remainder, although at other times irrigable, will pay either dry rates or no assessment at all.

102. To the above may be added that as a fluctuating system it is free from the defects and anomalies of either the variable system of assessment as first introduced by Mr. Whiteway in Ajmer, or of the variable system as now working since its modifications in 1893 (*vide* Appendix III. to this report). The basis of the assessment is produce, not merely area. There is no question now of a changing rate, rising high in years of falling area and curtailed food supplies, and the system will thus start off free from the violent prejudice (which attached to Mr. Whiteway's original scheme, and still attaches to the assessments of 2nd-class variable tanks), caused by a rate rising in lean years. There is no "standard demand" to strive after and to defeat the good intentions of the scheme: the revenue demand will fluctuate naturally with the character of the out-turn, will respond automatically to actual conditions, and the fixing of it will be done promptly at the time of harvesting by the assessing officer himself under the proposed rules direct, *vide* Appendix IV. There will be no reporting, as under present rule 12 on page 521 of the Ajmer Regulations, to higher authority, with its consequent necessary delay. The calculations will be simple, easy, and perfectly straightforward; the cumbrous system of dry unit areas, with its, in many cases, fallacious and unequal results, is avoided.

Finally, there is no such harassing uncertainty from the cultivator's point of view: he knows that if he sows a certain area with a certain crop he is liable to pay the rate for that crop, or that area: and that the rate will not be enhanced. He knows at once beforehand from the beginning of his operations the most that he is liable for, and can make his arrangements accordingly. But all along he has the further assurance that, should the season as it progresses prove unfavourable and the out-turn for the village fall below a certain level, the Government will not demand the full revenue given by the rates on the area sown, but something less in proportion to the actual out-turn.

103. For tank-lands at any rate the cultivators will have no objection to the system. They are already familiar with and appreciate a fluctuating assessment on tank-lands and on their *abi* soils. All that they really object to is, in the case of the first-class tanks, the present crop rates, which are, indeed, high as compared with the average run of rates on second-class tanks (*vide* Appendix I.), and, in the case of the second-class tanks, a rate rising higher and higher as the crop area and total out-turn fall. But neither of these objections will apply to the proposed system.

And as regards *chahi* lands, I think that the cultivators will, on the whole, welcome the system if only it be set going from the outset in proper order and they can be convinced by the its first few initial assessments that its working is going to be properly supervised and controlled by the superior revenue officers and that they will not be left gradually, from relaxed or perfunctory supervision and imperfect control, to the tender mercies of the *patwaris* and lower revenue staff. At any rate, in my inspections they point out to me with bitterness of spirit their fields still charged with a *chahi* rate though they are not now able to irrigate them, and petitions for the removal of the *chahi* rate are numerous.

And for *barani* lands, if *talabi*, *abi* and *chahi* soils are brought under a thorough-going fluctuating system, the villagers will not object to their *barani* lands following suit.

104. Lastly, to give some indication of the actual process of assessing a village and of the amount of work actually involved therein, I have taken the actual *Khasras* of two villages, *Ansri* and *Bhimpura* (one moderately good and one a poor village), extracted the actual crop figures therein recorded for each of the two harvests of each of the four years, 1307 *Fasli*, 1308 *Fasli*, 1313 *Fasli* and 1314 *Fasli*—two good years and two bad years—filled them on to *Khataunis* in the actual form proposed by rule 12 of the draft assessment rules in Appendix IV, and worked out in each case what would have been the current assessments had the system now proposed been then in force.

These *Khataunis* are attached as Appendix XX. to this report as specimen assessments for reference.

In these specimen *Khataunis* columns 6 have, owing to the want of the necessary information, had to be left blank, and in future actual assessments the entries in this column will add a little to the work on this *Khatauni*. But the additional work will ordinarily be very slight, consisting only of making deductions in column 11. And even with this addition, these specimen *Khataunis* first demonstrate clearly, I think, how really simple and straightforward is the assessing work as intended by the system proposed.

Secondly, they indicate the nature of the assessments to be expected to be given by the system. By the village crop-rates shown on these *Khataunis* (which rates are provisional only), the village-to-village data not being yet complete, the demands assessed under this system would have been :—

FOR MAUZA ANSARI.

					Rs.	A.	P.
1307 <i>Fasli</i>	...	...	...	...	140	9	0
1308 „	...	..	...	...	739	0	0
1313 „	...	...	...	...	85	12	0
1314 „	...	...	...	...	888	8	0

The total of the four years is Rs. 1853-13-0, and the average is Rs. 463.

The present annual fixed revenue for the village is (1314 *Fasli*) Rs. 556.

But the actual collections for these years have been :—

					Rs.	A.	P.
1307 <i>Fasli</i>	...	...	...	...	10	0	0
1308 „	...	...	...	...	801	0	0
1313 „	...	...	...	...	13	0	0
1314 „	...	...	...	...	809	0	0

of which the four year's total is Rs. 1,633 and the average Rs. 408.

FOR MAUZA BHIMPURA.

The corresponding figures are :—

Demand by the Proposed System.					Present fixed Demand.			Actual Collections.		
					Rs.	A.	P.	Rs.	A.	P.
1307 <i>Fasli</i>	...	...	...	...	109	11	0	486	0	0
1308 „	...	...	...	...	868	2	0	486	0	0
1313 „	...	...	...	...	104	3	0	486	0	0
1314 „	...	...	...	...	913	4	0	486	0	0
Total					1,995	4	0	1,944	0	0
Annual average*					498	0	0	486	0	0

The average of the fluctuating demands by the proposed system of two bad and two good years, while agreeing with the current annual demand under the fixed system, is here much above the actual collections, and it may be that the provisional rates I have used are still too high for this village, a matter that will be looked to when I come to go over each village in detail, with its complete figures in front of me, and fix definitely the rates for it and its standard nominal Jama. But the actual collections are not necessarily an infallible guide to a village's real revenue capacity.

105. There are three obvious possible objections to this scheme. One is, that by knowing that he will have to pay only on what he grows, the cultivator will not exert himself to crop as large an area as he might do if he had under another system to pay (say) a *chahi* assessment on it whether he cultivated it or not: that is, that the system will put a premium on laziness.

Another objection may be that the system removes all incentive to extend cultivation, such as a fixed assessment gives when fixed for a period of years. Under the latter system the villager gets the benefit for the term of Settlement at least of all such new cultivation; under the proposed system it will become liable to assessment either at once on being cultivated, or, if it receives any exemption under the rules for improvements, the exemption will be for a shorter period.

A further objection is that contained in Mr. Whiteway's paragraph 62 of his final report, viz: "that the system of a fixed rate on actual areas makes it the interest of each man to conceal as far as possible the cultivated area," while a scheme, such as Mr. Whiteway proposed which provides for the lowering of the rates with the increase of cultivation, gives some slight incentive both to its spread and to its correct record.

106. The first of these objections has perhaps some force in Merwara where Colonel Dixon's system of high assessment, though tempered by heavy remissions, was designed to some extent with the object of compelling the *Mers* to be industrious, but the force it has now is, I think, very slight. Even the *Mers* have settled down now to agriculture as a

* In these calculations everything has been included as assessable: but if crops of less than four annas standard were exempted from assessment, the annual average demand would not exceed Rs. 445.

primary means of subsistence. They have not still, as in Colonel Dixon's time, to be weaned from habits of depending on less reputable methods of livelihood.

And anyhow, both in regard to this and the second objection stated in the last paragraph, they would be by no means peculiar to the system now proposed for Ajmér-Merwara. They are common to all similar systems of fluctuating assessments which have been set in working elsewhere, and responsibility for which has been fully accepted. The Government of India themselves dispose of a similar objection to the fluctuating system (which they themselves recommend) on tank lands *vide* paragraph 7 (i) of their present letter. They say that "in view of the experience gained in other parts of India, the Government of India are unable to accept the argument that a fluctuating assessment would tempt the proprietors to let the tanks go out of use, as a sufficient ground for maintaining an irrigated assessment on unirrigated areas."

107. This statement of the position applies with equal force to wells and well lands. It is possible that the system proposed would here and there tempt some cultivators to content themselves with dry crops, to let the *chahi* area down purposely, and to shirk using their wells to their full capacity. But even if they did, the remedy under modern conceptions is not to "maintain an irrigated assessment on unirrigated areas."

As a matter of fact, however, the contingency, *viz.*, designed reduction of *chahi* area merely to escape the higher crop-rates, is not one which, I think, need be seriously feared. If a man has a well and there is water in it sufficient for irrigation, the Ajmer-Merwara cultivator will use it all right. Self-interest will drive him to do so. And as regards "dry" cultivation, the determining factor here will always be the rainfall. If this is or promises to be favourable, a large area will be put under seed, whatever be the method of assessment, provided that the expected demand be not too heavy. Lastly, the building of "new" wells for the extension of "wet" cultivation will not be checked if every cultivator building a new well is made, by a protective lease or otherwise, to realise that this new well will, under the rules already in force, be exempted from the full increased assessment for twenty years.

108. The third objection, *viz.*, the temptation to concealment, relates to a mechanical matter, the remedy of which lies in our own hands. The admission of successful concealment even would be a confession of failure which is at least premature. So long as the superior revenue staff see that the Girdawars are doing their checking work properly and are effectively supervising the patwaris' work, it should not be possible for cultivated areas to be concealed to any serious extent, or for a patwari to understate out-turn for long without being detected; and if such a case of understating or concealment should occur, the punishment should be prompt and deterrent.

109. There remain to be considered several subsidiary questions of importance in connection with this proposed system of assessment. These are :—

- (1) The assessment of lands the value of whose out-turn is enhanced by (a) new wells, (b) other improvements and (c) the breaking-up or reclamation of waste.
- (2) The fixing of rates for special waterings from tanks required for any purpose other than the production of a fully-matured crop (*vide* rule 4 (α) of the irrigation rules on page 436 of the Ajmer Regulations).
- (3) The assessment of lucerne grass and fodder crops.

- (4) The question of rates for *bhum* and *muafi* lands, both those entitled to tank water at privileged rates and those at ordinary rates (*vide* rule 13 of the irrigation rules on page 438 of Volume H to L, Ajmer Regulations).
- (5) The assessment of lands irrigated from tanks by 'lift.'

110. Questions two and three may be first dealt with.

- (i) As regards matter No. 2, I propose that the present rule four (a) referred to be retained unchanged. The cases of special single waterings have been and will be very few in number: and the rates given in that rule, which are based on the present crop-rates for the *Rabi* harvest, are already high enough. If any change were required to be made, it would be to fix rates lower than this. But in the circumstances the present rates may well be retained.
- (ii) And as regards question 3, here also the provisions of the present rules, *viz.*, rule 14 of the irrigation rules on page 438, and rule 18 (m) on page 520 of the Ajmer Regulations, may be retained unchanged. I have therefore reproduced the substance of these two rules in rule 8 of the proposed draft rules in Appendix IV.

111. In regard to question 4 of the last but one paragraph, from the point of view of tank water-rate or revenue, there are two kinds of *muafi* and *bhum*, one kind paying privileged rates on certain tanks, the other paying the ordinary *Khalsa* rates.

Under the present rule 13 referred to, the first, privileged, class pay a uniform fixed rate of Re. 1-4-0 per harvest, on the conditions stated in the rule. The rule applies to the present second class tanks only (*vide* paragraph 93 of Mr. Whiteway's final Settlement Report).

As regards this rate of Re. 1-4-0 per acre, I have not been able to discover with reference to what exactly this particular figure was originally fixed. But at any rate it is a very old one: in fact, it seems to be an old traditional rate—eight annas a *bigha*—found existing by former generations of officers, who have been concerned with the drafting of the Irrigation Rules into their present form, and adopted by them without change—perhaps an arbitrary rate, at which, probably from the first construction of the tank, the *bhumias* and *muafidars* concerned were allowed to take water. Or, if it did at one time represent any exact proportion of the ordinary *Khalsa* rates, all trace of this proportion seems since to have been lost.

If it is open to hazard the supposition that it represented one-fourth of a maximum rate of Rs. 5 per acre of ordinary crops on the better tanks, then on present figures even there is no reason for enhancement (*vide* paragraph 18 of Appendix I. to this report). One-sixth of the average annual value of an average acre of *talabi* soil under all second-class and fixed tanks is roughly Rs. 4 only, one-fourth of which is Re. 1, and these figures include land revenue also. On the better tanks the average would be somewhat higher, but Re. 1-4, as one-fourth of the ordinary *Khalsa* water-rate alone, may still be taken as a maximum. On the other hand, there is no question of reducing this old rate. It is now very well known and the people concerned are accustomed to it.

I therefore propose for the present, at any rate—for if, on further enquiry, there should appear any ground for re-considering this proposal, I will re-submit the matter—that this rate of Re. 1-4-0 be adopted for the new term of Settlement also for these privileged *bhum* and *muafi* lands.

This rate will, of course, apply only to irrigation taken by these privileged plots from those tanks in respect of irrigation from which they have hitherto been paying this rate.

All other *bhum* and *muafi* lands will of course pay the same water-rates as the ordinary *Khalsa* lands. The crop-rates, however, now proposed in this report are composite rates, including charges for both land and water revenue.

As already indicated, the third-class of crops represent primarily the crops sown on *barani* soil without irrigation; that is, their rates represent practically the revenue rate on the land in the village in its dry aspect apart from the irrigation factor.

Bhum and *muafi* lands, being land-revenue free, must of course not be changed with this. They may, therefore, be assessed at the ordinary *Khalsa* crop-rates after deduction of the third-class crop-rates of the village in which they lie:—e.g., the first-class crop-rate for irrigated crops in a village is Rs. 3, the third-class crop-rate is Re. 0-8-0 per acre. The water-rate, therefore, for *bhum* and *muafi* lands taking irrigation from a tank will be Rs. 2-8-0 per acre.

112. There is, however, another question as to these rates on these *bhum* and *muafi* lands, viz., whether they, or rather the revenue given by them, should, or should not, be made subject to proportionate reductions for diminished, under average, out-turns in the same way as the revenue on ordinary *Khalsa* lands is intended to fluctuate?

Under the present rules, the two kinds of *bhum* and *muafi* lands are treated differently. Thus, the privileged *bhum* and *muafi* lands which pay the fixed reduced rate of Re. 1-4-0 under the rule 13 quoted do so on the express condition that, if they begin taking the water in any harvest, this rate is payable in full (a) no matter how much or how little water they get, and (b) irrespective of whether they give a crop or not.

Ordinary *bhum* and *muafi*, on the other hand, which are irrigated from first-class crop-rate tanks receive the benefit of rule 9 of the irrigation rules when applied; or if irrigated from second-class tanks, and the crop is less than a four-anna one, they would in the same way as similarly failed *Khalsa* crops under rule 16 (2) not be required to pay any water-rate.

That is, for non-privileged *bhum* and *muafi* lands paying the ordinary *khalsa* water-rates the principle has been already admitted that whatever concessions, under the rules for the time being in force, the *khalsa* lands get, the *bhum* and *muafi* lands paying the same rates also get. This principle should be followed under the new system now proposed, proportionate reductions of the water revenue on these non-privileged *bhum* and *muafi* lands being given according to actual out-turn.

But what is to be done in this respect in the case of the first kind of *bhum* and *muafi* lands paying privileged rates on certain second-class tanks under rule 13?

The present position must, I presume, be allowed to continue. It will seem, perhaps, somewhat anomalous to allow fluctuating water revenue on other *bhum* and *muafi* lands and to refuse this on these privileged lands; but the question as to why the latter should not pay the full ordinary rates was raised at last Settlement, and it was apparently decided that as these privileged lands got their water-supply so cheaply, no further concessions were necessary. On the same ground, therefore, I propose that the rate of Re. 1-4-0 for these privileged *bhum* and *muafi* lands be again made conditional on full payment in all circumstances, as in the present Rule No. 13 referred to. The one exception only that might possibly be made in its rigidity is to remit altogether even this rate in cases where the crop irrigated turns out to be a complete failure, giving no grain out-turn. But even this I do not advocate: it would increase the work of the patwari and of the assessing officer and might lead to abuses for a comparatively small gain.

113. With regard to the question of "lift" irrigation from tanks (question 5 of para. 109), it is true that an acre of lift irrigated land will not, if the cultivator take sufficient trouble with it, give less produce than one irrigated by "flow." But there will ordinarily be a sensible difference in the cost of production, to the extent of the cost of the labour and other expenditure involved in working the lift, as compared with the flow irrigation.

This question of "lift" irrigation, however, I have already discussed in my Note on tanks in Appendix I. As there indicated, on other tank systems and on most canals the "lift" rate is usually one-half of the rate for the "flow" irrigation.

I propose that in Ajmer-Merwara also on crops grown by "lift" irrigation from tanks only half the rates be charged that are fixed for those irrigated by "flow."

114 With regard to the subject of new wells and other improvements (question 1 of para. 109), as the whole question of the existing Rules of Ajmer-Merwara relating to agricultural improvement still awaits examination, and there are certain points connected with them on which the ultimate orders may possibly modify these rules, I have put what I have to say for the present purposes into the form of a Note attached to this report as Appendix V., to which I would now request reference.

I then need only state here, in summary of the conclusions there given, the course which it is proposed to follow for the present in regard to the several classes of local improvements, pending the settlement of the whole general question of these improvement rules, and the final orders thereon :—

(1) A new well built within the last twenty years will be dealt with by the lands irrigated from it being assessed at "dry" rates for a period of twenty years from the beginning of the harvest first irrigated from it, in strict literal adherence with the existing rules.

(2) New wells will be understood for present purposes to include :

- (a) An entirely new well converting "dry" to "wet" cultivation, or creating new "wet" cultivation altogether.
- (b) A new well built where another well already exists, and irrigating only areas already irrigated and assessed at "wet" rates.
- (c) A new well built to replace an old one going, or gone, out of use from causes beyond the well owner's control.

(3) I propose also :—

- (i) In the case of an existing well or of an existing '*rappat*' (which is not already enjoying exemption under the current improvement rules), which has been fairly recently repaired and of which the repairs have involved the owner in serious expenditure,
- (ii) In the case of new distributaries, including *odhs*, and new *nâdis* and *rappats*, built within the ten years or so,

to consider each case on its merits without reference to any rigid periods, e.g., five or ten years, such as are prescribed by the present rules, and to grant exemption from increased assessment on increased value thereby created to such extent or for such period as may be necessary to recoup the capital expenditure incurred in each case, and to give interest thereon at the rate of, say, eight per cent. during the period of recoupment.

(4) A regards reclamation of waste, the existing rule will be followed.

(5) Unsuccessful new wells of the class referred to in paragraph 9 of the Note in Appendix V., I do not propose to deal with for the present, at any rate, pending orders on the general reference on the whole subject of the Improvement Rules: nor with repairs to existing distributaries and *nadis*.

(6) For each village, in the course of the current preparation of new records, two separate lists are being compiled in the village itself, one showing all its wells, and the second showing all its other improvements of all kinds. When the time comes for each village's assessment crop-rates to be fixed and its standard nominal *jama* to be worked out, its lists will also be gone through, and all wells and other improvements which are found to be entitled to exemption or reduced rates on the grounds stated above, will be registered in a "register of improvements entitled to concessions," in which will be recorded all necessary details, and an extract therefrom relating to his well or other improvement will be given to the owner concerned, by way of *sanad* or protective lease (*vide* para. 10 of the Government of India's Resolution No. 6-193-2, dated the 24th May 1906). Thereafter, when a new well is built or other improvement made, the Collector will, under rules (which will be submitted in draft for orders in connection with the general reference already referred to) prescribing all necessary procedure, have the well or other improvement after due enquiry registered in the register of improvements, and have a similar extract therefrom granted to the rightful recipient. It will then be one of the duties of the Revenue Extra Assistant Commissioner and of the Collector to watch the entries in the registers and, as the period of each registered concession expires, to take the necessary action to enforce the Government's full demand.

115. In the draft proposed rules in Appendix IV., I have inserted provisions relating to the assessment of new and repaired wells. But a re-draft to give effect to whatever orders are passed upon the present report will be submitted for separate consideration.

I may remark here, however, that if the system of assessment now proposed in this report be approved, at any rate on its broad lines, these rules are meant to take the place of (i) present rules 1 to 11, except 4 (a) and 4 (b) and 14 to 24 inclusive, of the present tank irrigation rules on pages 435 to 440, and (ii) all the present variable village assessment rules, 12 to 25 on pages 518 to 522 of the Ajmer Regulations, all of which rules may now be abolished. The remaining Irrigation rules 12, 13 and 25 to 68, together with Appendix A to these and its Forms may then be revised as executive and administrative rules, according to what is indispensably required.

116. The fluctuation system proposed is intended in general to apply to all the villages of Ajmer-Merwara. But there are a few villages in which, owing to exceptional circumstances, a fixed assessment may be allowed to be retained if the proprietors so desire it and there are guarantees that a fixed assessment will work successfully.

For instance, the village of Ashapura, near Nasirabad, belongs to the *Presbyterian Mission Society*, and is worked by it in direct connection with the purposes of the Mission. The present *Jama* is a light one, and the Society can and does finance the village through all seasons. Kiranipura, also, has some exceptional circumstances; it adjoins Ajmer itself, and its population are either *malis* or market gardeners, who grow fruits and flowers largely, for which there is a ready and lucrative market in the Ajmer City, or are of other castes who find ready employment there. Neither of these two villages, therefore, are dependent merely on agricultural conditions.

For such villages, if a fixed assessment were pressed for, that is, now

before the new arrangements are put into force, I think it might be granted on the express condition that, if the villagers ever applied for a suspension and remission of the revenue on the ground of adverse seasons, or allowed the revenue to fall into arrears at any time, the village would be brought at once under fluctuating assessment like the rest of the district.

If a general fluctuating system for all villages is now sanctioned, at the same time, therefore, power may be reserved for me to propose, by way of exceptions, fixed assessments for the villages indicated. This authority would, of course, be only very sparingly used, only where there is reliable ground for belief that a fixed assessment would work successfully without risk of suspensions, remissions or arrears of revenue.

THE GROSS PRODUCE AND NET ASSETS.

117. In this section of the report the figures now given relate only to the Ajmer district

The extraction work of the Beawar and Todgarh tahsils of Merwara is not yet finished, and their net assets and proposed rates will be reported separately as soon as the whole materials are complete.

The estimate of the total gross produce and the net assets for district Ajmer have been worked out as averages of the actual figures of five years—1304 *Fasli*, 1305 *Fasli*, 1308 *Fasli*, 1311 *Fasli* and 1314 *Fasli*. These are, it will be seen from the statement of harvests given in paragraph 36 of this report, the better years of the last decade. These can be taken, as we are proposing a fluctuating assessment which allows reduction for years under this standard, and are not proposing a fixed assessment for which an average of ordinarily good and poor years would be required. Owing to the area under cash rents being very small and, in fact under real competition cash rents, insignificant, no valuation of the assessable net assets of the district could be attempted by rates given by these cash rents.

There are, however, certain preliminary matters which require notice. These are those relating to:—

- (1) Prices.
- (2) The nature of the cultivating holdings, rents and the rental system, and the landlord's share of the divisible produce.
- (3) Customary deductions from the divisible produce.
- (4) *Bhusa* and straw.
- (5) Yields of crops and standards of yields.

PRICES.

118. I deal with prices first. I have had to work out the valuations of all the average crop out-turns by applying the retail prices, to begin with. These are for the main, and by far the most important, staples grown comparatively readily obtainable from the lists of retail prices kept up regularly in the tahsili registers, supplemented in a few cases by the Gazettes and the volume of "Prices and Wages" published by the Government of India, and, for a few of the earlier years after last Settlement, from the District Annual Administration Reports. These sources give the actual prices recorded at the time, year by year or month by month, for some twenty-one of the most largely-grown staples out of the forty-one different articles shown in the village Jinswara statements; and for these articles these prices cannot be questioned as the safest, most certain, prices to work on obtainable in the circumstances. And in the case of the remaining articles for which such recorded prices do not exist, or for which no series of prices over a number of years could anywhere be obtained, such as vegetables, melons, gwar, kulath, etc., I have, on the basis of actual

recent prices ascertained as obtaining in as many centres as possible all over the tahsil, or on estimates of the ordinary cash values of the average out-turn on an average acre of the crop in question, worked out for each an average cash price per maund or per average acre of produce, according to the nature of the crop, which is, I think, reasonably correct and safe. The statement of these prices is given in Appendix XIII. attached to this report.

119. A complete list of harvest prices, on the other hand, for forty-one articles over a term of years it has been impossible to obtain. No official lists of any of these prices are kept up anywhere in the district; and, although endeavour has been made to obtain these prices from private sources, and statements have been collected from mahajans, zamindars and others of all the larger or representative villages over all portions of the district, I have not been able to obtain a complete satisfactory list, for all the forty-one articles, of the ordinary average prices which the cultivators may be supposed to get for the produce of their several crops, on which one could rely with any confidence. At any rate, a satisfactory list of harvest prices obtained by the cultivators for even the majority of the ordinary crops over a term of years of any length it is practically impossible to obtain. The prices forthcoming are practically wholly those of recent years, which cannot be applied simply to the more distant years: while the prices given for the rarer crops seemed to be mere estimates in many cases rather than actual prices. Moreover, a set of actual prices of some sort or other, far as many years back as possible, was desirable as a definite basis to work on for several purposes connected with this report.

120. A valuation of the average gross produce and the assets at the retail prices alone which are paid by the consumers in petty transactions in the bazar would, of course, be entirely fallacious; a valuation representing values received by the cultivators from the grain-dealers on wholesale transactions is, of course, absolutely essential.

But it was really wasting time to try and guess out more or less fictitious, certainly assumed and not real, prices over a term of years for each individual article of the large number, forty-one, for which prices are required. It is obviously safer and is, in fact, the only practical course in the circumstances to take the retail prices and to apply them for the valuations required, and then to suitably reduce the latter to allow for the excess of retail prices over those at which the cultivators have to sell—as was done by Mr. LaTouche at the last Settlement (*vide* paragraphs 209 and 216 of his report).

With reference to the statement of retail prices given in Appendix XIII., it may be remarked that, as the tahsili registers give monthly prices, the figures shown in that statement are, for the articles taken from those registers, in each case the average of the prices recorded for the three months at and succeeding each harvest time (*viz.*, October, November and December for *Kharif* crops, and April, May and June for *Rabi* crops), these averages being taken as probably not so far removed from the level of harvest prices as a half-yearly, or a yearly, average would be. Nevertheless, these prices are still the retail prices of these months, and their effect still requires further reduction.

The question now is, to what extent the valuations at the retail prices which we have taken must be reduced to bring them down as near as we can judge to the level of the real assets of the cultivators.

121. At the last valuation of the district's assessable assets, made in 1874 by Mr. LaTouche, who also apparently found retail prices only available, he estimated (*vide* para. 216 of his final report) that the cultivator's selling price was about ten per cent. lower than the retail prices taken by him. A reduction of ten per cent. from the present retail prices, however, would not be sufficient. I have the village statements, already referred to, of the prices said to be obtained by the cultivators for their crops in those

villages or their neighbourhood, and by the courtesy of the local agents of the firm of Messrs. Ralli Brothers, I have been supplied with a list of their wholesale prices which they have paid for certain articles for a number of years past at their two agencies at Beawar and Kekri. Examining all these lists, I find that, for the articles given, these wholesale and village prices range roughly from 10 to 25 per cent. below their retail prices. The estimates of the Tahsildars and other revenue officials who have also been consulted in this matter put the price to the cultivator at some 10 per cent. to 12·5 per cent. and 15 per cent. below their retail price.

Personally, taking all considerations into account, I think we must assume a reduction of twenty per cent. all round from the stated retail prices before we can get down to a reasonably safe level of harvest prices. The Ajmer city bazar is fairly central for the whole of the Khalsa villages, but, on the other hand, the cultivator's produce changes hands at once in his village, and he will only get the village price which the Bunnia will give, and the Bunnia will naturally take care to pitch that price so as to cover at least the cost of any transporting of the grain that may be necessary. As the villages recede into the farther-removed outlying portions of the district, the selling prices to the cultivator must correspondingly fall lower and lower from the retail prices governed by the rates in the Ajmer market, on entering which, again, all articles will have paid an octroi tax.

Lastly, in respect of a large portion of the out-turn pure economic considerations do not apply. Even before it is sown, the crop is in many instances already hypothecated to the Bunnia who advances the seed, finances and feeds the cultivator during the period of cultivation, and at the last steps in to take the matured crop at his own price. If attention were concentrated solely on this factor, it would be very difficult to make any acceptable estimate at all of what the value was to the cultivators of the yearly crop out-turns.

But at any rate the reduction of ten per cent. from the retail prices, except possibly for a comparatively few villages in the vicinity of Ajmer, would, on general grounds, be too little. The reduction of twenty per cent. which I propose to make is not, I think, too much; on the contrary, if anything, when the village circumstances and the distances of outlying villages and all factors are considered, it might even be increased somewhat, up to twenty-five per cent. or so.

122. As regards the question of how present prices compare with those of last Settlement, I attach the two following statements, which explain themselves. The first includes the figures of all years during the last thirty for the six principal grain staples; the second excludes six years of famines or exceptionally high prices.

[STATEMENTS.

STATEMENT VII.

Average prices for certain staples since 1874 to 1906-07, Ajmer District.

Staples.	1874.	1877 to 1882.	1882-83 to 1886-87.	1887-88 to 1891-92.	1892-93 to 1896-97.	1897-98 to 1901-02.	1902-03 to 1906-07.	Average prices for the 20 years 1887- 1906-07.	Increase of prices of last 20 years over those of 1874.	Increase of prices of last 10 years over those of 1874.
1	2	3	4	5	6	7	8	9	10	11
Wheat	16.0	13.9	15.13	12.6	12.2	10.9	12.2			
Barley	24.0	19.11	26.1	18.7	21.11	16.13	17.11			
Gram	23.0	18.5	27.0	18.10	21.11	15.7	16.11			
Maize	22.0	19.14	25.14	17.11	21.10	16.5	20.10			
Jowar	23.8	19.13	24.11	18.0	21.12	15.15	21.2			
Bajra	19.12	16.3	19.15	17.3	17.5	14.7	17.4			
Wheat	16.0		14.11		12.4		11.6	11.13	+36 p.c.	+41 p.c.
Barley	24.0		22.14		20.1		17.4	18.11	+29 "	+39 "
Gram	23.0		22.11		20.3		16.1	18.2	+27 "	+43 "
Maize	22.0		22.14		19.11		18.8	19.2	+15 "	+19 "
Jowar	23.8		22.4		19.14		18.10	19.4	+22 "	+26 "
Bajra	19.12		18.1		17.4		15.13	16.9	+19 "	+25 "
Wheat	16.0		.....		12.12		.....		+26 p.c.	Increase of average
Barley	24.0		.....		20.1		.....		+20 "	price
Gram	23.0		.....		19.10		.....		+17 "	of
Maize	22.0		.....		20.6		.....		+8 "	the 30
Jowar	23.8		.....		20.4		.....		+16 "	years to
Bajra	19.12		.....		17.1		.....		+17 "	those of 1874.

NOTE.—All years included.

STATEMENT VIII.

Staples.	Average prices of 1874.	1877 to 1881-82.	1882-83 to 1886-87.	1887-88 to 1891-92.	1892-93 to 1896-97.	1897-98 to 1901-02.	1902-03 to 1906-07.	Percentage of increase of prices 1897-1907 to 1874.	All round increase 1887-1907 to 1871.
1	2	3	4	5	6	7	8	9	10
Wheat	16.0	15.1	15.13	12.12	12.11	11.0	12.2		
Barley	24.0	22.8	26.1	18.10	21.1	18.3	18.15		
Gram	23.0	22.0	27.0	18.10	24.11	16.9	17.11		
Maize	22.0	23.12	25.14	18.4	24.4	17.15	22.5		
Jowar	23.8	23.11	24.11	18.7	24.13	17.8	22.11		
Bajra	19.12	18.13	19.15	15.8	19.4	15.14	18.10		
Wheat	16.0		15.7		12.12		11.9	+39 p.c.	
Barley	24.0		24.5		21.6		18.9	+30 "	
Gram	23.0		24.8		21.11		17.2	+34 "	
Maize	22.0		24.13		21.4		30.2	+9 "	
Jowar	23.8		24.3		21.10		20.2	+17 "	
Bajra	19.12		19.6		17.6		17.4	+15 "	
Wheat	16.0			13.4		20 years average 1887 to 1907.		1877-1907 to 1874.	
Barley	24.0			21.7					
Gram	23.0			21.2		12.3		+21 p.c.	-31 p.c.
Maize	22.0			22.1		20.0		+12 "	+20 "
Jowar	23.8			22.0		19.7		+10 "	+18 "
Bajra	19.12			18.0		20.11		+10 "	+7 "
						20.14		+7 "	+13 "
						17.5		+10 "	+14 "

NOTE.—The years 1877-78, 1878-79, 1891-92, 1896-97, 1899-1900 and 1905-06 have been omitted as years of abnormally high prices.

Statement VII. shows that the average prices over the whole thirty years are in general some seventeen per cent. above the average prices taken by Mr. LaTouche in 1874 for his valuation : while for the last twenty years they are all-round twenty-five per cent. higher. For the past ten years the prices which have ruled are all-round some thirty-two per cent. higher. Wheat has consistently risen higher than the other five commodities. But barley which is the principal staple of food in the district shows rises of twenty per cent, twenty-nine per cent. and thirty-nine per cent. in the above three periods.

Omitting the six abnormal years, however (*vide* Statement VIII) we find that over the thirty years as a whole barley has risen twelve per cent., while over the last twenty years it is twenty per cent. above that of 1874, and the average price of the last ten years is as much as thirty per cent. over that of 1874. All other articles exhibit a rise, though, except in the case of wheat, the rises are in general more modified. Taken all together the six articles indicate that all-round average prices over the whole thirty years are ten per cent., those over the last twenty years are seventeen per cent., and those over the last ten years are some twenty to twenty-four per cent. above the prices of 1874.

123. For the last eighteen years ending 1314 *Fusli* the district has compiled each year an annual district aggregate Jinswara statement showing the total areas and produce out-turns. These eighteen years are just short of a full two decades ; but as they represent closely enough the latter, I have taken these statements and valued their aggregate produce for each crop year by year at the prices shown in the statement in Appendix XIII., and worked out the annual average valuation. This comes to Rs. 13,54,110, without any account taken of bhusa and straw.

Valueing these average out-turns for the whole eighteen years of these statements, however, at the prices taken by Mr. LaTouche in 1874 (paragraph 209 of his report), we find that the present aggregate average produce would be worth Rs. 11,01,787. Rs. 13,54,110 is in excess of Rs. 11,01,787 by some twenty-two per cent.

That is, these figures indicate that prices over the last twenty years have averaged all-round some twenty-two per cent. higher than those at the last valuation in 1874.

With the value of bhusa and straw added in each case, the corresponding figures are Rs. 14,35,852 and Rs. 11,65,952, again a difference of twenty-three per cent.

The detailed figures of these valuations are given in the statement attached as Appendix XIV. to this report.

Again, taking areas into account, both of Mr. LaTouche's statement and of the present eighteen years' average we find (*vide* Appendix XIV.) that his all-round average price for the produce of all crops combined was Rs. 2 09; while the corresponding price of the eighteen years' average total annual valuation is Rs. 2 83—the individual valuations at both periods being made, of course, at retail prices. Mr. LaTouche reduced his retail prices by ten per cent ; we reduce ours by twenty per cent.

Rs. 2 09 reduced by ten per cent. gives Rs. 1 88.

„ 2 83 reduced by twenty per cent. gives Rs. 2 26.

„ 2 26 is twenty per cent. in excess of Rs 1 88 ;

that is, over the tahsil as a whole and its total produce, a rise of twenty per cent. in the general value of agricultural produce over the last twenty years from the level of thirty years ago is indicated.

Lastly, allowing for the difference in the average yields per acre for the six chief staples of paragraph 122, as assumed in Mr. LaTouche's statement (page 94 of his report) and of the average actual out-turn of the last eighteen years (Appendix XIV.) we get the following figures:—

STATEMENT IX.

1	2	3	4	5	6	7	8
STAPLE.	MR. LATOUCHE'S SETTLEMENT.			PRESENT.			Difference of Column 7 and Column 4.
	Out-turn per Acre assumed.	Price assumed. (Rupees per Md).	Value per Acre.	Average actual out-turn per Acre.	Average price (Rupees per Md).	Value per Acre.	
	Mds.	Rs.	Rs.	Mds.	Rs.	Rs.	
Barley	10-00	1-66	16-66	10-31	2-31	23-82	+ 43 p. c.
Maize	10-00	1-82	18-20	7-68	2-14	16-44	- 10
Jowar	2-50	1-71	4-25	2-36	1-97	4-65	+ 10
Bajra	2-50	2-03	5-10	2-85	2-33	6-65	+ 30
Gram	2-50	1-74	4-35	3-54	2-35	8-32	+ 91
Wheat	7-50	2-50	18-75	7-34	3-19	23-42	+ 25
TOTAL ... ..	...	...	67-31	...	...	83-30	+ 23

. That is, again an all-round increase of values of some twenty-three per cent. is indicated.

There is thus ample evidence that there has been an increase of values of produce of some twenty per cent., or a little over twenty per cent. all round. Taking the round figure, we may assume for the purposes of this report an increase of twenty per cent, that is, primarily in retail prices; but we may assume also that, with the undoubted improvements of communications by road and railways and the greater movements of the population, the harvest values or prices have followed this rise of retail prices in an approximately corresponding degree.

THE HOLDINGS AND TENANTS, RENTS AND THE RENTAL SYSTEM, AND THE LANDLORD'S SHARE.

124. The distribution of the total areas in holdings between the *khetwadars* and their tenants is indicated for tahsil Ajmer in the following statement:—

STATEMENT X.

DETAILS.	CIRCLES.					Total of District Ajmer.
	1311 FASLI.					
	Ajmer.	Gangwanna.	Pushkar.	Rajgarh.	Ramsar.	
1	2	3	4	5	6.	7
1. Cultivated Area	23,106	26,067	5,534	25,150	40,643	1,20,500
2. Area self-cultivated by the Proprietors	11,939	18,119	2,944	12,130	22,711	67,873
3. Percentage of 2 to 1	51·67	69·51	53·20	48·23	55·95	56·33
4. Area cultivated by Tenants—						
(a) Paying <i>Kind</i> rents—						
(i) Ordinary	3,781	6,342	2,574	3,610	5,020	21,330
(ii) Theka and Gugri ...	233	20	5	119	35	412
(b) Paying <i>Cash</i> rents—						
(i) Ordinary	240	379	3	860	1,438	2,920
(ii) Gugri and Theka ...	618	146	8	218	141	1,130
(iii) Halsa and low-rented Barani	6,292	1,062	..	8,213	11,268	26,835
5. Percentage of 4 (a) (i) to 1 ...	16·23	24·33	46·51	14·35	12·35	17·70
6. Do. of 4 (a) (ii) to 1 ...	1·01	·08	·09	·47	·09	·34
7. Do. of 4 (b) (i) to 1 ...	1·03	1·45	·05	3·42	3·51	2·42
8. Do. of 4 (b) (ii) to 1 ...	2·68	·56	·15	·87	·35	·94
9. Do. of 4 (b) (iii) to 1 ...	27·23	4·07	...	32·66	27·72	22·27
	100·00	100·00	100·00	100·00	100·00	100·00
10. Percentage of 4 (a) + 4 (b) ...	48·33	30·49	46·80	51·77	41·05	43·67

	1311 FASLI.					
1. Cultivated Area	22,811	23,060	7,934	25,164	39,537	1,18,506
2. Area self-cultivated by the Proprietors	11,878	15,673	4,226	12,686	22,483	66,946
3. Percentage of 2 to 1	52·07	67·96	53·27	50·41	56·87	56·49
4. Area cultivated by Tenants—						
(a) Paying <i>Kind</i> rents—						
(i) Ordinary	4,669	5,790	3,626	3,732	6,431	21,258
(ii) Theka and Gugri ...	24	17	5	140	59	452
(b) Paying <i>Cash</i> rents—						
(i) Ordinary	281	594	25	913	1,675	3,398
(ii) Gugri and Theka ...	689	76	42	171	170	1,148
(iii) Halsa and low-rented Barani	5,270	1,009	...	7,522	8,719	22,511
5. Percentage of 4 (a) (i) to 1 ..	20·47	25·11	45·83	14·83	16·27	20·47
6. Do. of 4 (a) (ii) to 1 ..	·11	·07	·06	·56	·15	·21
7. Do. of 4 (b) (i) to 1 ..	1·23	2·19	·31	3·63	4·23	2·87
8. Do. of 4 (b) (ii) to 1 ...	3·02	·33	·53	·68	·48	·97
9. Do. of 4 (b) (iii) to 1 ...	23·10	4·34	...	29·89	22·05	18·99
	100·00	100·00	100·00	100·00	100·00	100·00
10. Percentage of 4 (a) + 4 (b) ...	47·23	32·04	46·73	49·59	43·13	43·51

The year 1311 *Fasli* was taken, as in that year the last usual local six-yearly Jamabandi was drawn up. The figures for 1314 *Fasli* I have had specially compiled as showing the facts nearer to the present date.

This statement shows that of the total area annually taken into holdings :—

- (1) 56 per cent. is self-cultivated by the proprietors.
- (2) Some 19 per cent. to 22 per cent. is made up of halsara, and of stretches of course barani land, akin to the halsara.
- (3) 21·5 per cent. to 25 per cent. only are what for the time being may be called ordinary rented lands.

With regard to halsara lands, paragraph 31 of Mr. Whiteway's Final Settlement Report may be referred to. I need only add that the rates paid for them are still old traditional rates as entered in the records of past Settlements, and in no way represent anything approaching real or competition rents.

And as regards the stretches of course barani areas which, on similarity of conditions, have been included under this head halsara, the rents practically invariably represent merely the barani revenue rate on the village. These areas are, indeed, khewat land, but are those which the khewatdar allows another to cultivate on the payment by the latter of the revenue only on it.

As, however, these barani areas are distinguishable from the halsara proper, and if we are to presume that Mr. LaTouche, in the statement in paragraph 217 of his report, included these revenue-rate-paying barani areas in, while excluding the halsara lands from the so-called tenants' area, we may, in order to establish a nearer comparison of past and present conditions, remove these khalsa areas again from the khalsa. Roughly they occupy, I estimate, some three per cent. of the whole holdings area.

125. Including these revenue-rate-paying barani areas, then, the rented area now is some 24 to 28 per cent. of the holdings' area, as compared with the twenty per cent. of roughly at Mr. LaTouche's time—an increase, in fact, is apparent. And an increase of course would naturally be looked for from a probable rise in population and the growth in the number of mortgaged holdings. But while the latter is no doubt real from the series of years of famines and distress since last Settlement, the increase in agricultural population has been very slight. The total figures for the whole Ajmer district, including urban and non-agricultural population, were in 1876, 3,09,914, and in 1901, 3,67,453,—ostensibly an increase of 18·56 per cent. But the bulk of this rise is claimed by the city of Ajmer, and the very large railway communities which have been attracted since the opening of the railway and the location of its huge workshops here : the increase outside the city in the rural areas is probably very slight. In the 1881 Census the recorded population was 3,59,288, so that the rise in the last twenty years up to 1901 has been, for city and all, only two per cent.

But, on the whole, if even it be presumed that Mr. LaTouche's figures refer to the same areas as those now given in the above statement, all that can be safely said is that, on the figures available, the rented area shows the natural tendency to increase, without having actually increased to any marked extent. It would seem to average now about one-fourth of the total holdings' area as compared with one-fifth in 1874 *vide* the opening portion of paragraph 6 of the Government of India's letter No. 417-42-2 of 26th February 1907, under reference.

126. Further analysis of the tenants' area in the above statement exhibits also the relative unimportance of the cash rents. Eliminating *gugri* rents, with which have been classed a few so-called leases (*thekas*),

only some two-and-a-half to three per cent. of the whole holdings' area is under real cash rents. *Gugri* payments include other considerations, such as interest on debt besides the cultivatory rent for the land, and it is not possible to separate the rent from the total payment. The *thekas* are often more genuine rents, but they are in the first place practically all lump rents over mixed soils, and, apart from these rents themselves, there are practically no other areas for deducing the soil proportions by which to resolve these lump rents into soil rates. Secondly, even when analysed, they are usually found to express no more than the *zabti* rates which we know already under the heads "cash rents-ordinary" of the statement above.

These "ordinary" cash rents are, in fact, largely *zabti* or *jinspher* rents only—far maize and cotton only, nearly all ranging roughly round Rs. 2 per bigha or a little over. These rates are, however, with a few exceptions, old traditional rates only, and in some places they are alleged to be now much too low. On the other hand, in a few cases where higher rates have been imposed in recent years, the struggle is still going on, on the one side to collect, and on the other to resist, these rates.

In the circumstances, therefore, such cash rents as exist, apart from their covering only so minute an area, are, from either being obviously low or from not having yet reached that stereotyped stage at which they could be taken as established fair competition rents, not capable of being taken as the basis of rental values for the vast remaining area.

127. We are thus thrown back entirely to the kind rents. These I have had also separated into (1) those taken by mortgagees (*gugri*), and those in which the rent is paid in a fixed number of maunds of grain without any relation to the actual total out-turn and (2) "ordinary" kind rents.

It is in these "ordinary" kind rents alone that we must find our guide to the prevailing accepted rates of rent. They cover some eighteen per cent. to twenty per cent. of the total holdings area.

The areas covered by these "ordinary" kind rents are now analysed further in the following statement, so as to indicate the actual percentage of the produce taken by the landlords :—

[STATEMENT.

STATEMENT IX.

Showing Analysis of the Average Rent Rates in Kind, District Ajmer.

Rates in Kind, District Ajmer.

[illegible]

Over the tahsil as a whole, on the area let, the landlord's share amounts, it will thus be seen, to roughly one-third of the out-turn. The share in the *khalsa* is higher in the aggregate than in the *Jagir* Estates—a natural phenomenon explained by the fact that the *Jagirdars* are for the most part non-residents, and have no further concern with the land or their tenants than the collecting of the rents from them, while in the *khalsa* villages the reverse is the case—the landlords are in the main residents, the fields let change from year to year, and the landlords are in many cases very directly concerned with the lands let, either from having themselves previously manured them, or from supplying manure or seed, or lending the use of a well or implements, or from giving some other assistance.

For these latter considerations the half produce rates taken do not generally represent the true rents alone. They represent the latter *plus* varying amounts for materials supplied or help given. These latter considerations must therefore be eliminated. They absorb, as a fair all-round average, about one sixth of the produce: and the landlord's actual true rent in these cases is therefore more correctly one-third share only. Over the *khalsa* villages, therefore, the landlords' share as rent proper on the areas let may be taken as now given in the next statement:—

STATEMENT XII.

	1311 FASLI.			1311 FASLI.			TOTAL.		
	Area.	Share.	Percentage.	Area.	Share.	Percentage.	Area.	Share.	Percentage.
Ajmer ..	3,784	1,239	32.71	4,669	1,515	32.09	8,453	2,754	32.93
Gangwana..	6,312	1,981	31.23	5,790	1,781	30.76	12,132	3,762	31.01
Pushkar .	2,574	750	29.14	3,636	1,034	28.43	6,210	1,784	28.72
Rajgarh .	3,610	1,171	32.43	3,732	1,216	32.58	7,342	2,387	32.51
Ramsar ..	5,020	1,668	33.22	6,431	2,110	32.87	11,451	3,808	33.25
Total ..	21,330	6,809	31.92	24,258	7,716	31.81	45,588	14,525	31.86

Thus, in the gross, the landlord's share indicated is between thirty and thirty-three per cent. of the gross produce.

The above results can, however, be regarded as very approximate only. As the figures required for this statement have not been previously recorded in these districts, it has been necessary to compile them field by field from the *khassas*, in which again, unfortunately, in many instances the entry as to the rate of *batai* taken had not been recorded. For these fields we have supplied the missing entries by taking what seemed to be the more prevalent rate in the village, but, of course, this process leaves room for error.

128. Over the tahsil (*khalsa* villages) as a whole, however, it is true as a general proposition, indicated and confirmed both by actual enquiries in the villages at inspection and by the village rent and area statements extracted for the purpose of the above three tables, that in the *kharrif* harvest the *barani* crops pay generally one-fourth share of the produce, while the *rabi* crops under *batai* pay one-third. And it is in fact fairer to take these percentages, *viz.*, twenty-five per cent. and thirty-three per cent. as all-round standards for calculating the owner's share in fair-rented fields according

to the prevailing rates over the tahsil as a whole. This I have done in paragraph 145, etc., in estimating the half net assets of the several soil areas.

CUSTOMARY DEDUCTIONS.

129. The *wajibularz* of practically every village still contains provisions relating to the payments to the village servants and menials. But in practice, except perhaps as regards the village *Balaïs*, these provisions are now very largely a dead letter. Either the villagers pay when they think they can afford to, and then only the least that they think that the others will take and remain disposed to do their work and not boycott them in future; or, as the still resident village carpenter, blacksmith and other skilled workers will not work for nothing, the tendency is to pay these by the job, to fix the remuneration according to the labour involved in the particular piece of work in hand. That is, the village servants—and even the menials—have become or are fast becoming, mere occasional employés, no longer paid by fixed percentages on the harvest's out-turn or supported entirely by the general village community to pursue their own particular profession exclusively.

In short, "customary deductions" as such are disappearing, and occasional payments, or wages, are taking their place.

130. For these developments there are two main causes :—

- (1) The recent series of bad years, and
- (2) The opening of the vast railway workshops at Ajmer since Mr. LaTouche's time.

The harvests have been poor on and off for many years past and the cultivators have not had the surplus, over their bare needs to keep themselves alive, to pay over the old customary deductions in full : they have paid, or owed, for only just the pieces of work absolutely necessary for them to continue the agricultural operations, and, with the village menials and the village skilled servants still resident in the villages, have themselves sought support on the famine relief works. And the still-growing railway workshops with their thousands of employés and good constant wages in Ajmer have attracted to themselves very large numbers of operatives of all crafts and trades, so that the old skilled village servants are now as a class not dependent solely on the ordinary village work.

131. The *data* for estimating the proportion of the total produce paid to these village servants are very confusing. The payments are, of course, still generally made in kind, but the amounts stated vary very considerably. Often a cultivator would tell me one figure, while the village blacksmith or other servant would, with an eye to establishing or forcing a precedent for future use, tell me another, and the new *wajibularz* has not yet been drawn up and attested. However, the commonest method (1) in which village dues are paid here is so much per plough to each person entitled to them. But (2) it is paid also by so many sheaves of grain and straw from the fields, or (3) at so many seers per maund of grain produced, or (4) at so many maunds or seers at each harvest irrespective of the actual amount of grain out-turn, while (5) in many villages a simple fixed cash payment is made; lastly (6), in many villages it is boldly stated that there is no fixed custom; payments are made according to the character of the harvest, the resources of the payer and the amount of work done.

Working on the *data* available, however, I find that my village-to-village notes made during inspection show calculations giving proportions, where it is possible to work them out mathematically, ranging from 2·5 per cent. up to 12·5 per cent. of the total out-turn per harvest paid as these village dues. The lower limit, however, is rare; the more frequent estimates are 7·5 per cent., 10 per cent and 12·5 per cent. On the whole

some 10 per cent. of the total out-turn may be taken as the total expenditure by the villages upon village servants and menials in return for their ploughs, implements, etc., being kept in repair and order, for vessels supplied and for all other services rendered.

132. The whole of the above, however, is not paid from the threshing floor. The ordinary recipients of village dues are (1) the *balai*, (2) the *kumhar*, (3) the *nai*, (4) the *lohar*, or blacksmith and (5) the *khatî* or carpenter—the 4th and 5th being more often than not combined in one person. But, except in a few villages, it is only the *balais* now to whom payment is made from the common heap before the remainder is divided between the tenant and his landlord. And in many villages also even the *balais* are not paid from the common heap but by a cash payment once or twice a year from the village fund.

The rest of the servants are, except in the few villages referred to, now generally paid *after* the produce division where this takes place. The landlord pays his own quatum from his share and the cultivator pays his dues from his share.

As regards the amount paid from the common heap, where this practice obtains I estimate this to range from 2·5 per cent. to 5 per cent. of the total out-turn. And presuming that it is paid regularly—which is, however, not always the case—I have taken the higher limit of 5 per cent. as the safe figure to take all round in connection with the calculation of the net half assets.

At the same time, it has to be remembered that as the village servants have not been paid already before the landlord receives his share: they have still to be paid by him out of the actual share which he does receive. This payment, therefore, reduces *pro tanto* the amount from which he has to pay his land revenue. In any case we might well allow, for these after-payment also, a deduction from the gross produce or its valuation before calculating the net assets.

But in Ajmer-Merwara the income of the proprietors in *khalsa* villages from their tenants is, after all, a minor item in the total account: we have, in fact, to deal not with a body of middlemen landlords living on their tenants' rents, but with large bodies of indigent petty peasant proprietors who, a few exceptions apart, depend wholly for livelihood on cultivation in a very precarious tract. In the circumstances we may, I think, without unduly favouring them, concede to these cultivating proprietary brotherhoods a deduction for each and every village and for the whole of it, of the full 10 per cent. (*vide* end of the last paragraph), from the gross produce on account of the total expenditure upon village menials and servants, before deducing the net assets on which to base our assessments. And this 10 per cent. deduction I have, in fact, made in calculating the net assets in paragraph 145 below.

BHUSA AND STRAW.

133. The custom as to *bhusa* and straw is, in general, that the cultivating tenant retains the whole of it. Here and there the landlord will take some part of it—and in some cases where half *batai* is taken, half of the *bhusa*, etc., also is taken, the landlord supplying seed, manure and the like,—but as a general rule it is not regarded as a part of the produce to be shared.

In Oudh and the portions of the United Provinces where, owing to the want of sufficient grazing lands, the staple diet for cattle is the *bhusa* and stalks of *rowar* and the like, the *bhusa* and straw and stalks have an acknowledged value of anything up to one-third of the price of the grain. In Ajmer-Merwara, on the other hand, as Mr. LaTouche remarked (paragraph 215 of his final report), “The value of straw and *bhusa* is” (still) “almost nominal.” The majority of the villages have large grazing areas, which grows good enough grass, which is cut and stocked and the cattle are regularly fed on it. It is usually only the proximity of the

villages to large centres such as Ajmer and Nasirabad, where there are numbers of animals kept which cannot be supported by grazing or grass, that gives the *bhusa*, etc., any real value. From such villages the *bhusa* and straw is carried in small quantities, usually head loads, and its sale proceeds are a useful asset in helping to keep the villagers going through the seasons. But as Mr. LaTouche further remarks, the sale proceeds in the main "do not more than cover the wages of the carriers."

At the same time there are evidences that the value of the *bhusa*, straw and stalks is being more and more appreciated. In my inspections I came across villages quite removed from the bigger centres, in which the straw and *bhusa* were evidently a distinct asset to the people, as they in some instances complained that the Bunnias attached their stocks of stalks, and by depriving them of this supply of fodder made it difficult for them to feed their cattle. And in many villages this fodder is to be seen carefully stacked after each harvest time.

134. Examining the statistics of the crop-cutting experiments, and collating the returns of ninety-five experiments conducted in twenty-nine different villages in the last ten years or so, I find that crops of which the grain out-turn was valued at Rs. 2,124 produced also *bhusa*, straw, etc., which was valued at Rs. 480. These figures put the value of the latter as 22.6 per cent. of the value of the grain—that is, roughly one-fifth. But I regard this percentage as much too high. The value of the straw and *bhusa*, etc., was, no doubt, in each case estimated at a price which it was assumed would be obtained for it if it was sold under conditions in which there was a demand for it. But as already indicated, the proportion sold to the total is very small: there is no market for the vast remainder; it is only used to supplement the grass, and only really acquires a value when the grass supply fails. At the most, therefore, I would estimate the value of the straw and *bhusa* as some ten per cent. only of the grain value as an all-round general average—and this amount may be taken into account in estimating the total value of the gross produce of the whole tahsil. But no account can be taken of this straw and *bhusa* in deducing the net assessable assets, as they do not enter into the landlords' assets.

YIELDS OF CROPS, AND STANDARDS OF YIELDS.

135. Crop experiments have been conducted in the districts since 1894, in the following crops: maize, cotton, barley, gram, gujari, gulchani, bejhar, wheat, and jowar. Their results I have had collated, and those for the Ajmer tahsil I now deal with.

In the first place they are considerably discrepant.

Thus for maize the experiments show yields per acre varying from 10 maunds up to 32 maunds for *chahi* lands, and from 3 maunds up to 30 maunds for *talabi* lands, per acre. Similarly, cotton varies from 6 to 14 maunds per acre for well lands and from 6 to 13 maunds for *talabi* lands; barley from 5 to 30 maunds on well lands and from 4 to 21 maunds on *talabi*, while it ranges round 5 to 6 maunds in *abi* lands; *gujari* shows yields of 12, 15 and 20 maunds on well lands and 4 to 11 maunds on *talabi* lands. For bejhar the records of only two experiments exist, one showing 6 maunds out-turn on *talabi* land, and one $4\frac{1}{2}$ maunds on *abi* soil, in two moderate villages of the Gangwana Circle.

Similarly, only one experiment for gulchani is recorded, showing $4\frac{1}{2}$ maunds of produce on tank soil in one of the above two moderate villages.

For wheat, I have the figures of two experiments only, one showing 12 maunds and the other 14 maunds of produce, in well lands.

For gram only one experiment exists, showing 2 maunds of produce per acre on *abi* soil.

For jowar the experiments are fairly numerous, but show yields of 6, 8 and 10 maunds on well lands and of 2 to 5 maunds on barani soil.

And even when the nature of each harvest, as recorded, is looked at, these crop experiments by themselves, with their discrepant results, do not enable one to determine with any confidence what may be taken as normal yields for crops. There is no doubt that the higher yields shown above are much too high to be taken as safe estimates of normal yields, while, on the other hand, the lowest yields are for several reasons much too low. Moreover, in the case of most of the crops listed above, the experimental instances are few only, and in none are they, I consider, sufficiently numerous to be depended on alone. We must, therefore, seek for additional *data* to supplement the indications given by these crop experiments.

136. The additional *data* available are (1) estimates furnished by the villagers themselves to me or my camp-clerk at the time of my inspecting the villages, and tabulated village by village for the majority of the villages throughout the tahsil, (2) certain estimates, or opinions, of a number of the more intelligent land-holders with whom I have conversed on the subject, and (3) estimates furnished to me by certain revenue officials who, I thought, from their powers of observation and practical experience of agricultural conditions in the tract, would be able to give a helpful opinion. The whole of course is supplemented by my own impressions formed by continued observations and enquiries.

With regard to these several *data*, in general the estimates furnished to me by the revenue officials were, in my opinion, pitched on the high level, and were in fact too high to take as safe all-round average normal yields; while on the contrary, those given to me by the landholders tended for the most part to be on the low level, being cautious statements made to a Settlement Officer.

The first set of *data*, on the other hand, provide in the circumstances a reasonably acceptable set of estimates or opinions of real average capabilities. At any rate, they represent the opinions taken on the spot of a large number of cultivators, than whom no one else can have a more intimate knowledge at first hand of what out-turn their fields and crops usually give, and these figures were, in most cases at any rate, not hastily given, but in the end the figures recorded were those which the villagers were agreed upon after discussion.

In a few cases I have since rejected these estimates as too low where I found no adequate explanation for what, on comparison with neighbouring similar villages, seemed unduly low figures; but these cases are few, as I have in general preferred to let these actual estimates of the villagers themselves stand exactly as they were. These estimates have now been tabulated by circles, and form a most important material, corrected where necessary with the guide of the crop experiment results and the other *data* referred to, for the figures of normal yields now given.

137. Thus, taking maize by the several circles, we find, in Ajmer circle, that two crop experiments gave yields of $10\frac{1}{2}$ maunds on one field and $14\frac{1}{2}$ maunds on another, both irrigated from wells.

The official estimates put the normal average yield on well lands at 20 maunds, and on tank lands at 15 to 20 maunds; on *abi* lands at 5 to 10 maunds and on *barani* soil at $2\frac{1}{2}$ to 4 maunds.

On the other hand, two villages being eliminated, the collated figures recorded in my inspection note books give the following results, for average yield per average field per acre, for the remaining villages of this circle, *viz.*, one village—a good one—records 17 maunds; two villages record 15 maunds; three villages record 12 maunds, and 4 villages record 10 maunds of maize.

Thus, from all factors we may assume the figure of 12 to 13 maunds per acre of maize as an average normal yield for this circle.

In the Gangwana Circle, one village being rejected as too low and two others as too high, the general all-round normal yield indicated of maize per acre on average fields is 13 maunds on irrigated soil, while on *abi* or good *barani* soil in a favourable year it is 4 maunds.

In Pushkar Circle the indicated normal yield on average fields is some 14 maunds : in Rajgarh Circle it is a little under 14 maunds. In the Ramsar Circle, which is a large one, the all-round yield is 12 maunds : and in the better villages some 14 to 15 maunds.

Thus, for the district as a whole, some 13 maunds to 14 maunds may be assumed as a general "normal" yield per acre of maize on average fields.

In like manner on average fields, a "normal" for wheat is 12 maunds in Ajmer Circle, 13½ in Gangwana Circle, 14 in Pushkar Circle, 13½ in Rajgarh Circle and 12 in the Ramsar Circle. For the district as a whole, that is, the normal yield of wheat per acre of average fields may be assumed to be some 13 maunds.

For certain other principal staple crops (abnormally high and low figures being eliminated), the similarly-deduced estimates of assumed normal yields per acre of average fields are as given in the following general statement :—

Statements XIII, showing assumed "normal" yields, in maunds per acre.

Crop	Ajmer.	Gangwana.	Pushkar.	Rajgarh.	Ramsar.	Crop Experiments.	Average for District, approximate.
1	2	3	4	5	6	7	8
Maize ...	12-50	13-00	14-00	13-50	12-00	Chahi 10 to 32-00 Talabi 3 to 30-00	13-20
Cotton ...	8-00	10-00	8-50	8-50	9-60	Chahi 6 to 14-00 Talabi 6 to 13-00	8-80
Jowar ...	2-50	4-25	3-75	4-00	2-75	Chahi 6 to 10-00 Barani 2 to 5-00	3-35
Til ...	1-75	3-00	...	1-75	1-00	.....	1-75
Bajra ...	2-50	4-25	4-66	4-00	2-75	.....	3-60
Mung ...	2-50	3-25	4-33	3-20	3-50	.....	3-50
Kulath...	2-50	...	...	...	...	.....	2-50
Moth ...	2-50	3-50	5-00	3-20	3-10	.....	3-50
Urd ...	2-50	3-50	...	...	...	.....	3-00
Wheat...	12-00	13-50	14-00	13-50	12-00	Chahi 12 to 14-00	13-20
Barley ...	16-00	18-50	20-00	15-00	14-00	Chahi 5 to 30-00 Talabi 4 to 21-00	16-70
Gram ...	3-75	5-25	5-00	5-00	5-50	Abi 2-00	4-90
Gujai ...	16-00	17-00	20-00	13-50	14-50	Chahi 12 to 20-00 Talabi 4 to 11-00	16-60
Bejhar...	...	5-00	...	5-00	..	Talabi 6-00 Abi 4-50	5-00
Zira ...	...	4-00	...	...	...	...	4-00
Gardens,	...	...	25-00	...	...	.....	25-00

These yields, it must be remarked, do not express what produce may be given by special fields, heavily manured and extra-carefully tilled; they are intended to relate to average fields only. But, on the other hand, they do assume that these average fields are producing a fully-matured crop over the whole area, and giving the largest crop out-turn that they are capable of. This point is of great importance in connection with the question of the revenue rates to be adopted.

138. In the past, however, in Ajmer-Merwara (1) it has not been the custom to note the degree of maturity of each field or crop, or whether the whole area, or only part of it, has matured—the only distinction that

has been made has been in the case of a field on which the crop totally failed, in which case it was recorded as *nabûd*, all others giving a crop, however little, being recorded as *bûd*, without further specifications, (2) nor has it ever been the practice to refer the actual out-turn of a field or crop to a prescribed normal yield per crop per unit area. In the irrigation rules a "full average yield" of crops is referred to, and in the variable village assessment rules, $\frac{3}{4}$, $\frac{1}{2}$ and $\frac{1}{4}$ crops are talked about; but there is nowhere any definition of what is a full crop, or what is a full average yield of each crop;—a fact which has caused recurring difficulty in the matter of suspensions and remissions, and led to varying, more or less rough-and-ready, expedients for getting over it.

Thus, though the Khasra in use does record, in addition to areas, the estimated out-turn of each field and crop area, from which, referred to any prescribed standard yield, the degree of maturity of any particular crop in any particular area could, of course, be worked out, yet the fact remains that the system at present in force has never worked on these lines and no "crop standard yields" yet exist.

139. Had the past practice here been different in these two respects, we might now at once accept the normal yields arrived at in paragraph 137 as "standard normal yields," and proceed to seek for revenue rates to fit these. But for such revenue rates to be really reliable we ought to have as a basis the real fully-matured areas for the several soils and crops of the years from the figures of which the net assets are to be deduced, and the rates ought then to be evolved from these net assets. And to determine these fully matured areas we must know the exact proportions of the total sown areas which year in and year out give crops that are up to the fully-matured standards—that is, the exact fully-matured areas.

But, in local circumstances as they are, the only available material that the past record system of Ajmer-Merwara gives, furnishes no guide to these exact proportions or exact fully-matured areas. The only material that does exist consists merely of the figures of the *nabûd* and *bûd* areas and of the out-turns on the latter. And in the endeavour to extract some further information from these figures we may make a comparison of these areas over a series of years, and elicit that the proportions of the *nabûd* or totally-failed areas to the total sown areas have been, so far as recorded, 1 per cent. to 3 per cent. for the *chahi* and *talabi* soils, 5 per cent. to 16 per cent. for the *abi* soils, and 18 per cent. to 30 per cent. for the *barani* soils in the several assessment circles. But this after all carries us no distance towards these "fully-matured areas."

For, of course, all the remaining areas have certainly not given always fully-matured crops—nor have they all given equally-matured crops. A system of estimating *kharaba*, such as exists in the Panjab, for instance, would most certainly show an appreciable percentage of these remaining areas as also "failed," and indicate what percentage in each case, so that "fully-matured" areas could be worked out. It is just at this point, however, that the necessary information for Ajmer-Merwara is not forthcoming. In fact, there is nothing on record in the past to guide one to any estimate of the true "matured" areas on any soil.

And even if we were to attempt to make estimates of these, of the percentage of the total area sown on any soil that will ordinarily be fully-matured, over a series of years, so as to set up "standard matured areas," necessary for the evolution of rates to suit fully matured areas—yet, while the process of educing these would be difficult and lengthy, the accuracy of the results in the end could hardly be guaranteed. They would, in the absence of reliable materials, be little more than rough guesses. And "standard rates" based on these thus roughly estimated standard matured areas would necessarily be vitiated at their source.

140. As we thus have to give up this method—the only one directly based on the actual figures of the actual years from which are taken our half net assets which are to determine the pitch of the assessment—the

only other possible method is to take the "standard normal yield" of a fully matured acre of each crop, apply an average price, then to make the usual adjustments in the valuation thus obtained, and from the resultant left to strike a rate for the crop in question. This method is however, necessarily of the nature of *pro-aller*, and though with care reasonably reliable rates could thus be worked out, the same confidence could not be had in regard to their future actual effects and working, as in respect of rates based on the averages of large and extensive areas actually recorded for a number of years.

141. On the other hand, the actual material that is available will, its limitations admitted, give results that are at any rate certain.

The existing Khasras for the past seventeen years (during which the present form of Khasra here has been in existence) give figures of "*bud*" areas and of the outturns thereon, which—as the revenue demand has not depended on these except to a very partial extent in the few variably assessed villages, and the patwaris have therefore had no motive for any general manipulation of them—may be taken as reasonably correct. At most, the recorded estimates of the produce outturn may in some cases have been pitched too low, or too high, by inexperienced patwaris. This latter possibility, however, need not be considered as having vitiated the figures to any serious extent.

Now, from these recorded figures over so long a period over the broad areas of the circles, the average outturns per "*bud*" acre for all crops separately can be easily and certainly worked out.

Further as these "*bud*" areas in the aggregate include both fully matured, and partially matured areas of all degree of maturity and as their aggregate outturns similarly express the produce outturns of both fully and partially matured areas, averages deduced from these, therefore, already within themselves make allowance for the "partially matured" or "partially failed" areas included in the aggregate figures. If now a period of years be taken sufficiently long or sufficiently typical of ordinarily prevailing conditions, the average outturns deduced from the figures of this period will also contain within themselves allowance for all the ordinary degrees of partial maturity or partial failure that usually occur in the cultivated areas—at least, they do this for the period selected, and, it may be inferred, for the past generally if the period is sufficiently long or typical enough,—and it may then be reasonably assumed that the conditions of the future in Ajmer will over a similarly long or typical period resemble closely enough those of the past.

Next, rates based on these average outturns will similarly also already contain within themselves allowance for all the ordinary degrees of partial maturity or partial failure that usually occur in the cultivated areas over a similar period; that is, in a year typical of the period, such rates may be excepted to express at once over broad areas the full just revenue based on the outturn conditions and to require little or no adjustment.

And, equally with the averages of the aggregate "*bud*" areas and their outturns, such rates can be easily and certainly worked out. It is merely a question of selecting the period from which the materials are to be taken.

142 For obvious considerations, I have taken a period of five years from which to work out the gross produce and net assets estimates, (*vide* paragraph 145 below) selecting five years in the last ten, *viz.* : 1304 *Fasli*, 1305 *Fasli*, 1308 *Fasli*, 1311 *Fasli*, and 1314 *Fasli*, which were, so far as one can judge from all the information available, reasonably typical fairly good years, or would give an average, as it were, reasonably typical of a fairly good year for the tract.

For these years the actual average "*bud*" areas have been worked out and have then been taken to divide the half net assets to give

half net assets rates per acre of "*bud*" area. At the same time, the average out-turns of these "*bud*" areas per acre per crop have been worked out.

Desiring, however, to test the figures both of the average out-turns and of the half net asset's rates given by these five years' figures, and to supplement those of the average out-turns in several cases of the rarer crops of which the five years' figures furnished either few instances or very small areas only, I have, as a matter of fact, gone also to the wider period of the sixteen years from 1299 *Fasli* to 1314 *Fasli*, and taking its jinswara statements for each of these years and eliminating all obviously abnormal entries, have had the average out-turns of all crops, for this period also worked out.

These actual average out-turns of the five years' period supplemented or corrected by the figures of the sixteen years' period, are as now given in the following statement :—

[STATEMENT.

STATEMENT XIV.

Showing proposed "Standard Average Yields" of Crops in maunds per "bûd" acre.

Crop.	Actual Average Outturns for five years per acre of Bud area (<i>vide</i> Gross Produce and Net Assets Statements (Appendix XV).)						Proposed Standard Average Yields per acre of Bud area.																	
	Ajmer.	Gangwana.	Pushkar.	Rajgarh.	Ramsar.	Whole District.	Ajmer.		Gangwana.		Pushkar.		Rajgarh.		Ramsar.		Whole District.							
							Mds.	Srs.	Mds.	Srs.	Mds.	Srs.	Mds.	Srs.	Mds.	Srs.	Mds.	Srs.						
Maize	7-56	9-45	10-24	8-44	9-43	8-95	8	...	9	20	10	10	8	20	9	20	9	...						
Cotton	6-76	5-82	6-93	6-74	6-89	6-69	7	...	6	...	7	...	7	...	7	...	6	30						
Jowar	2-89	2-31	2-48	1-90	2-85	2-53	3	...	2	20	2	20	2	...	3	...	2	30						
Bajra	3-82	4-11	3-34	3-13	2-16	3-42	3	35	4	...	3	10	3	5	2	20	3	20						
Til	1-48	1-32	2-96	1-26	2-04	1-59	1	20	1	15	2	...	1	10	2	...	1	20						
Mung	3-15	2-31	1-34	2-15	2-01	2-36	3	6	2	10	1	20	2	10	2	...	2	10						
Kulath	2-41	1-83	2-27	1-15	1-76	1-78	2	20	2	...	2	10	1	20	1	30	1	30						
Moth	1-53	1-49	1-92	1-79	1-52	1-68	1	20	1	20	2	...	1	30	1	20	1	25						
Urd	6-67	...	3-86	2-45	3-33	3-94	3	20	2	20	3	20	2	20	3	10	3	10						
Wheat	12-13	13-17	8-93	10-59	8-27	9-48	12	5	13	...	9	...	10	20	9	...	10	...						
Barley	13-61	13-29	9-79	11-62	10-95	12-00	13	25	13	10	10	...	11	30	11	...	12	...						
Gram	4-41	3-62	4-22	3-79	4-46	4-07	4	15	3	25	4	10	3	30	4	15	4	...						
Gujari	15-83	13-11	9-90	13-06	12-58	13-23	15	...	13	5	10	...	13	5	12	25	13	10						
Pohjar	7-75	6-79	4-40	6-96	7-53	7-02	7	30	6	30	5	...	7	...	7	20	7	...						
Rice	13-50	4-68	7-02	8-44	10-18	7-63	10	...	5	...	7	...	8	...	10	...	7	...						
Zira	1-52	3-45	9-04	6-88	3-56	3-67	1	20	1	20	1	20	1	20	1	20	1	20						
Gardens	25-95	5-00	11-92	2-58	5-64	24-16	25	...	5	...	12	...	3	...	5	20	24	...						
Sugar cane	8-10	...	8-04	...	8-06	8-10	8	...	8	...	8	...	8	...	8	...	8	...						
Melons	57-27	17-40	40-00	46-94	52-44	48-06	55	...	17	20	40	...	40	...	32	...	45	...						
Rajka	35-03	10-29	14-00	12-16	9-88	15-31	30	...	10	...	14	...	12	...	10	...	15	...						
Red pepper	19-46	11-03	12-57	16-81	25-78	18-10	19	20	11	25	12	25	17	...	25	...	18	...						
Tobacco	19-61	...	...	2-00	4-78	18-61	19	...	5	...	5	...	5	...	5	...	10	...				
Rosos	7-17	...	...	2-00	6-30	7-...	7	...	2	...	2	...	2	...	2	...	5	...				
Linseed ... ..	...	...	7-80	2-77	1-41	2-10	1	20	1	20	1	20	1	20	1	20	1	20				
Gulchani	10-21	7-75	2-25	12-78	5-37	8-86	10	10	7	30	6	...	12	30	6	...	9	...						
Indigo plant	7-24	...	...	4-94	5-6	6-38	7	...	5	...	5	...	5	...	5	...	6	...				
Poppy and Tijara ... ..	...	...	...	...	...	...	3	30	3	30	3	30	3	30	3	30	3	30
Vegetables	22-40	19-51	11-22	22-65	18-43	20-49	20	...	19	...	12	...	20	...	18	...	18	...						
Dhaniya ... ..	...	...	...	...	...	...	5	...	5	...	5	...	5	...	5	...	5	...
Methi	17-83	2-04	...	12-44	4-63	5-20	5	...	4	20	5	...	5	...	4	20	5	...						
Onions ... ..	...	...	...	...	...	...	10	...	10	...	10	...	10	...	10	...	10	...
Lahsan	20-27	21-01	...	30-00	82-70	33-61	15	...	15	...	15	...	15	...	15	...	15	...						
Singhara	4-00	...	...	...	4-67	4-50	4	...	4	...	4	...	4	...	4	20	4	20			
San (Hemp) ... ..	...	8-42	1-87	...	3-46	2-47	2	...	2	...	2	...	2	...	2	...	2	...					
Sarson	13-20	8-5	6-17	2-24	4-00	2-76	3	...	2	20	3	...	2	10	3	...	2	20						
Gajar	17-83	15-62	24-56	8-74	15-74	15-21	18	...	16	...	24	...	10	...	16	...	15	...						
Kangni	12-88	...	...	...	...	12-88	3	...	3	...	3	...	3	...	3	...	3	...		
Gwar	2-75	8-85	3-76	2-55	2-16	2-60	2	30	2	30	2	30	2	25	2	20	2	20						
Chanaula	1-33	2-67	7-2	1-54	1-79	1-49	1	20	2	...	1	20	1	20	1	30	1	25						
Marua	7-47	3-75	18-82	6-71	9-20	8-39	4	...	3	20	4	...	4	...	4	...	4	...						
Others	5-68	7-27	11-97	3-30	12-10	7-23	5	20	7	10	11	10	3	10	12	...	7	10						
1. Bejhar when grown with Irrigation ... ..	...	...	...	...	...	...	12	...	12	...	12	...	12	...	12	...	12	...
2. Gram when grown with Irrigation ... ..	...	...	...	...	...	...	10	...	10	...	10	...	10	...	10	...	10	...
3. Jowar, Bajra, Moth, Mung, &c., when grown with Irrigation ... ..	...	...	...	...	...	...	9	...	9	...	9	...	9	...	9	...	9	...
4. Til, when grown with Irrigation ... ..	...	...	...	...	...	...	6	...	6	...	6	...	6	...	6	...	6	...

143. These figures, at any rate, represent averages of actual figures which, as already indicated, may be taken as reasonably reliable. They relate admittedly to the local *būd* areas only; but for this very reason they already closely reflect the actual conditions of cultivation that prevail in an ordinarily averagely good year. Further, the *būd* areas from which they are worked out allow of definitely reliable rates being worked out also, to fit in at once with these average out-turns.

For working out the "standard normal yields," on the other hand, (paragraph 137) the materials are neither so full nor so certain while they leave much more room for error—the crop experiments that already exist, relate to very few crops only, and, with the whole two districts to survey, to prepare new maps and records for, and to inspect and assess, apart from reallocating its patwaris' and Girdawars' circles and drafting sundry sets of new rules, within the time sanctioned for the current operations, we cannot delay matters further in order ourselves to carry out a series of experiments in regard to the rather large number of remaining crops. And even the estimates taken from the villagers of the crop outturns are not so certain as are the above average outturns of the *būd* areas, the individual estimates of which were recorded at the time with the actual field and crop in front of the pawari.

But even when worked out, these "standard normal yields" are of no practical use unless we have rates to fit them. Such rates, however, owing to the impossibility of getting the real matured areas, it is impossible to work out here in the same reliable method as that by which we can work out rates for the *būd* areas. And even if worked out in any other way—*e.g.*, by the method indicated in paragraph 140, there still remains the fact that these "standard normal yields" and their high correlative rates would fit the actual conditions of perhaps never a single year or, at most, of one now and again only.

On the whole, therefore, I propose to take these actual average out-turns given in paragraph 142 as "standard average yields" and to use, in conjunction with them, rates which have direct reference to them, in making the assessments—instead of the "standard normal yields" of paragraph 137, with higher rates relating to 'fully-matured' areas. These "standard average yields" and their rates relating to the *būd* areas will require no manipulation of the areas such as the higher "standard normal yields" and higher rates might require,—the ordinary *būd* areas and their outturns as recorded will be taken direct as they are, no adjustment is needed; and they should reduce the calculation work otherwise to some extent also over the large number of assessments that will have to be worked out at every harvest under the general fluctuating system proposed: they will, in fact, help very largely to put that system on its simplest basis.

144. This is, of course, the possible objection to these "standard average yields" and their rates, from the Government point of view that these, being fixed with reference to aggregate *būd* areas only, which include in themselves many areas which were only partially matured, are unduly moderated for good years and will in such good years cause a loss of some revenue as compared with higher rates fixed with reference to "fully-matured" areas and "standard normal yields." And the objection is certainly true. But in the first place these "standard average yields" and their rates on the *būd* areas have not been fixed merely with reference to an aggregate average of good and bad years alike—*vide* paragraph 142—they themselves represent the figures of fairly good years. Good years better than these are comparatively very few in Ajmer-Merwara, *vide* again the statement of harvests given in para. 36 above of this report, so that the loss would not be very serious over a long period. But some slight loss even being admitted, it is not a dear price to pay, I think, for the practical advantage of the all-round greater simplicity of the system proposed with its "standard average yields" and rates working on the ordinary *būd* areas and causing no disturbance in the existing practice as

regards the Khasra, as compared with a system of higher standards working on more concentrated areas, requiring further and novel adjustments, and complicating the work of assessment.

THE GROSS PRODUCE AND NET ASSETS.

145. To come now to the Gross Produce and Net Assets Estimate (*vide* paragraph 117)—the character of the harvests of the five selected years were as follows:—

Year.		Kharif.		Rabi.
1304 Fasli	...	Fair	...	Good average.
1305	"	Good average.	...	Fair.
1308	"	Good	...	Fair.
1311	"	Moderate	...	Good.
1314	"	Good	...	Fair.

As reference to the statement in paragraph 36 of this report will show, there was very little room for choice in view of the fact that we are proposing an all-round fluctuating system of assessment.

The detailed gross produce and net assets estimate statements, for the circles and for the district, being bulky, are attached as an Appendix XV, A to F. For the present purpose of ready reference, I extract therefrom the following main figures:—

STATEMENT XV.

1	2	3	4	5	6	7	8
CIRCLE.	Annual Average Gross Produce, (Maunds).	Valuation at Retail Prices.	Valuation at Retail Prices reduced 20 per cent. with further 10 per cent. deduction for Menials etc.	Landlord's Share = Net Assets.	Half Net Assets.	Incidence of Half Net Assets on the "Bud" cropped areas.	Incidence of Half Net Assets on cultivated area.
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs. A. P.	Rs.
Ajmer ...	1,31,473	3,84,506	2,76,844	86,764	43,382	2-09 2 1 6	2-04
Gangwana...	1,30,322	3,66,321	2,63,752	82,582	41,291	1-75 1 12 0	1-68
Pushkar ...	29,149	92,020	66,254	20,721	10,360	1-91 1 14 6	1-84
Rajgarh ...	1,24,606	3,88,782	2,79,923	89,705	44,853	2-05 2 1 0	2-02
Ramsar ...	2,53,079	8,23,012	5,92,569	1,91,207	95,603	2-39 2 6 0	2-54
Total Distt.	6,68,629	20,54,641	14,79,342	4,70,979	2,35,489	2-11 2 2 0	2-11

The reductions in column 4 of this statement, of 20 per cent. for the excess of retail prices over harvest prices, and of 10 per cent. for customary deductions are in accordance with the proposals in paragraphs 121 and 132 respectively. And the landlord's share, that is, the value of the hypothetical amount of the divisible gross produce which would represent the landlord's income if the whole cultivated area were let out to tenants is calculated in accordance with what has been said in paragraph 128.

A full 50 per cent. of this landlord's share for the whole Ajmer Khalsa area is Rs. 2,35,489: and on the assumption that the landlord's share, *i.e.*, the net assets, had been completely accurately estimated and that we were dealing with solvent large-landed proprietors, the Government might insist on this sum of Rs. 2,35,489 as the total annual State Demand for a year whose conditions approximated closely to the average prevailing conditions of the above five selected years.

146. We cannot, however, contemplate, even for these years, so high a revenue demand as Rs. 2,35,489 for Ajmer-Merwara. The net assets of Rs. 4,70,979 have been calculated with all the care, in the examination of the statistics in the several steps of the process, that was possible in the circumstances. Nevertheless, the process necessarily proceeds on a series of assumptions which still leave room here and there for error. In the matter of the prices applied for the valuation, for instance, great caution is necessary, and in view of the comparatively high figure given by the deduced net assets, it is only prudent to leave some further margin here for safety. Further, owing to the want of their systematic record in the past, the kind-rent rates which have had to be assumed for estimating the landlord's share, are not necessarily absolutely certain. Moreover, the total aggregate area under these kind-rents amount only to some 18 per cent. to 20 per cent., less than one-fifth, of the whole area to be assessed, and we have to apply the inferences from this small area to the whole of the large remainder, some eighty per cent. of the whole area; which is not area from which capitalist proprietors derive their income from the rents of tenants, but is, nearly all, area under the self cultivation of large bodies of indigent petty peasant farmers struggling along from year to year; for whom in the United Provinces at least (e.g., rule 26 of the Board's Circulars I—XV) an allowance is usually conceded of a deduction up to twenty-five per cent. from the valuation of their lands actually self-cultivated when valued at the rates of their tenants' rents.

The incidence indicated by these half net assets on the cultivated area is also somewhat high, viz., Rs. 2.11 for such a tract, as noted by Mr. LaTouche at last Settlement in paragraph 277 of his report, even in the good years selected. The present average total cultivated area of these five years, as taken from the yearly Milan-Khasras is 1,11,326 acres, of which only 25,302 acres are *chahi* and *talabi*: that is, the present percentage of irrigated to cultivated area is now even less, viz., 22.73 per cent. only. And in some tracts of the Mainpuri district which I personally assessed just before coming to Ajmer, I see that in one, with over thirty-three per cent. of the cultivated area under irrigation, the incidence of the new revenue imposed was Rs. 1.70 only, while in another with over sixty-seven per cent. under irrigation, the incidence was only Rs. 1.82. These new revenues were, of course, fixed assessments for a period based on average conditions, but the bulk of the irrigation is supplied from the comparatively certain source of the Ganges Canal, and conditions are in the latter tract at least fairly stable, so that a high average is maintained.

On general considerations, therefore, this strict half net assets figure of Rs. 2,35,489 must be obviously lightened before we can fix a standard of assessment.

147. The current revenue, exclusive of a small amount for Sayar profits, and of the cesses, is in round figures, Rs. 1,65,000. This was, however, assessed with reference to a fixed system for an average of good and poor years over a period. But taking its revenue rates, village by village and circle by circle, and raising them by twenty per cent.—the measure, roughly, of the general rise in the value of agricultural produce since last Settlement, *vide* paragraph 123—and applying the resultant enhanced rates to the present average cultivated area of the five selected years (Appendix XVII), we obtain the figure of Rs. 1,81,861 (roughly Rs. 1,82,000), as the revenue that would be given by present average cultivated areas at the last settlement rates enhanced by twenty per cent.

Now, it being presumed that the last assessment rates were fair ones at the time, and that we have now correctly estimated the real rise of prices of produce at some twenty per cent. or a little over, a fair revenue in a year which has detailed soil areas under cultivation of the same kind and extent as the averages of our five selected years, would be this figure of Rs. 1,82,000 or thereabouts, with better years than the average of our five

selected years giving a higher sum than this, and poorer years giving a lower sum.

This figure of Rs. 1,82,000 is roughly forty per cent. of the full net assets of paragraph 145—to be exact, this forty per cent. of Rs. 4,70,979 is Rs. 1,88,391.

Distributing the net assets according to the several classes of holdings in Statement X of paragraph 124, and making an allowance on the proprietors' self-cultivated or unrented areas by taking only three-fourths of their full half assets we get the following figures :—

Area.	Percentages.	Proportion of Net Assets.	Assessable.
(1) Tenants' area under ordinary kind rents.	20 per cent.	Rs. 94,196 (@ 50 per cent.)	Rs. 47,098
(2) Proprietor's self-cultivated and unrented areas.	75 „	„ 3,53,234 (@ 50 per cent.- $\frac{3}{4}$)	„ 1,32,463
(3) Other areas ...	5 „	„ 23,549 (@ 50 per cent.)	„ 11,774
Total ...	100 „	4,70,979.	1,91,335

That is, making a liberal reduction, on behalf of the petty peasant proprietary communities of the district, from what we might otherwise take, if we were assessing only ordinary single or joint zamindari Estates, but making no allowance for any margin of safety such as is referred to in paragraph 146 above, we obtain the figures of a little over Rs. 1,90,000, as the revenue indicated.

148. In 1312 *Fasli* (*vide* Statement IV, in paragraph 37) a total sum of Rs. 1,97,241 was collected as revenue and in 1301 *Fasli*, the large sum of Rs. 2,09,908. The latter year was for the tract a good one: 1312 *Fasli* was not particularly favourable. As compared with these figures of actual collections, a Jama of Rs. 1,82,000 to Rs. 1,88,000 may perhaps seem moderate for years of the character of the five selected years. But in the first place, the collections noted were made under the pressure of large outstanding arrears to be recovered, and do not profess to have been based on the actual out-turns of those particular years, and were possibly entirely out of any real relation to them. Further, 1301 *Fasli* was a year of very large areas, while 1312 *Fasli* was also above the average in this respect.

And the areas of the present five selected years, though above the recent averages, still leave room for expansion. The average *chahi* area, for instance, of this five-years period is still 17,084 acres only as against 18,263 assessed at last Settlement for a fixed assessment, while the *talabi* area is similarly low, 8,218 as compared with 9,153; and generally the present average total area is 1,11,326 only as compared with 1,20,760 acres which Mr. Whiteway took as his directly assessable area. 1301 *Fasli*, with a recorded cultivated area of 1,21,465 exceeded even this.

But lastly the total actual collections for the five years, 1304, 1305, 1308, 1311 and 1314 *Fasli* (*vide* paragraph 37) averaged only Rs. 1,34,000; while, in addition to all else, there are always fairly large Taccavi Advances to be recovered over and above the current revenue, and also a considerable amount of interest on debt to be met by these petty proprietors.

In all the circumstances of the tract, therefore, a standard of forty per cent. of the present calculated net assets will be certainly sufficiently high to take, and in fixing the actual crop rates which are now proposed for sanction, I propose ordinarily not to exceed this general standard.

149. For working out the rates, the various crops have first been arranged in Appendix XV, according to the crop-class now proposed;

and, then, in each case the residue of the valuation of the gross produce, after all adjustments made to give the average half net assets of the crop in question, has been divided by the so-called matured, *i.e.*, the local *būd*, area. This area we have had to take for the reason already explained, *viz.*, that it was not possible to find the figures of the more concentrated fully-matured areas.

In order to test the results given by these five years in Appendix XV, I have taken also the detailed Jinswara entries selected for each Khalsa village over the whole district for each of the sixteen years 1299 to 1314 *Fasli* (referred to in paragraph 142), and have had their half net assets, as it were, and their *būd* area incidences worked out in exactly the same way. Lastly, I have also taken the aggregate Jinswara statements of the fifty Jaghir villages for the past twelve years for which these statements exist, and similarly worked out from their actual figures their half net assets and incidences.* I append therefore all three sets of incidences for comparison :—

*Vide
Appendix
XVIII.

STATEMENT XVI.

Period and Description.		'Ajmer Circle.				Gangwana Circle.				Pushkar Circle.				Rajgarh Circle.				Ramsar Circle.				Total District.			
		CROP CLASSES.																							
		I	II	III	Total.	I	II	III	Total.	I	II	III	Total.	I	II	III	Total.	I	II	III	Total.	I	II	III	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	
Khalsa.	5 years actuals																								
	4.19	1.61	.71	2.09	3.76	1.31	.62	1.75	3.00	1.41	.66	1.91	3.71	1.47	.55	2.05	3.67	1.88	.64	2.30	3.78	1.68	.64	2.21	
	4.23	1.46	1.05	2.39	3.79	1.35	.87	1.94	4.22	1.34	.71	1.93	3.77	1.28	.92	2.20	3.73	1.64	.81	2.43	3.66	1.44	.89	2.20	
Jagir, 12 years actuals.		..	...	..	..	...	..	...	..	...	..	...	..	...	..	...	..	...	..	...	3.83	1.54	.71	2.15

Allowance being made for my having evidently assumed too high a standard of out-turn in selecting the entries from the Jinswara statements for the sixteen years, more especially in respect of the dry crops on *barani* soils, and for having deducted only five per cent. for "customary deductions" for the Jaghir villages, these three sets of incidences agree very closely ; and the two checks, *viz.*, the sixteen years' selected Jinswara entries and those of the Jaghir villages confirm, I think, the correctness of the net half assets and their incidences in Appendix XV.

150. Appendices XV and XIV have, apart from the rates, another interest also in shewing the crop developments which have taken place since 1874; these though small yet exhibit a real tendency towards substitution of the more valuable and irrigated crops for the less lucrative crops. Thus, cotton and maize have increased largely in the kharif harvest, while wheat, both alone and in combination, and *gujari* and *bejhar* have increased in the rabi ; while *bajra*, *jowar*, *mung*, *moth*, etc., have all declined. And the average total rabi area is also now over thirty per cent. as compared with twenty-seven per cent. then.

The percentages of the total area held by the several crops are as now given in the following statement :—

STATEMENT XVII

*Showing Percentages of Five years' Average of the Crops grown, by Circles,
in District Ajmer (on matured acres).*

Crop.	Amor.	Changrout.	Pudhau.	Rajshah.	Rumra.	Whole District.	1874.	Average of 14 years, 1850-99 to 1900.
1	2	3	4	5	6	7	8	9
CLASS I. A.—								
Sugar-cane	17	...	1.90	...	...	12	26	12
Melons	23	02	08	07	04	08	26	01
Lucerne	03	02	...	04	02	03	01	02
Red pepper	09	10	08	09	05	08	04	08
Tobacco	11	...	...	...	01	02	05	...
Roses	01	...	...	...	...	...	...	...
Gardens	36	...	12	01	...	07	01	10
Total of Class I. A	1.00	11	2.18	21	12	40	63	33
CLASS I. B.—								
Maize	9.70	7.98	4.30	13.08	15.70	11.88	6.33	11.26
Cotton	5.75	7.55	3.84	11.02	15.18	10.15	5.20	11.00
Linseed ... ..	...	...	02	01	03	01	03	...
Wheat	2.23	1.22	2.07	2.48	5.82	3.34	2.33	3.43
Barley	15.66	13.97	20.67	11.21	13.86	14.61	11.91	15.21
Rice ... ..	...	01	64	04	01	04	06	07
Gulchani	09	23	05	38	19	22	...	...
Indigo	31	...	...	06	01	08	...	...
Vegetables	77	11	19	21	16	29	32	58
Methi	03	...	...	10	1.02	39	...	03
Zira... ..	10	33	08	06	08	13	...	10
Gujai	2.37	1.67	2.89	2.78	1.91	2.18	15	2.23
Lahsan	03	01	...	...	01	01	...	...
Singhara ... ..	...	...	...	...	...	...	...	...
Dhanua ... ..	...	...	...	...	...	...	...	01
Poppy seeds and heads ... ..	...	...	...	...	...	...	06	01
Total of Class I. B	37.04	33.08	35.05	44.43	51.01	43.63	29.72	43.93
Grand Total of Class I	38.04	33.22	37.23	41.61	51.13	44.03	30.35	41.26
CLASS II.—								
Bejhar	71	3.92	2.41	2.68	2.52	2.51	1.34	2.69
Gram	4.18	8.28	2.82	6.16	6.12	6.18	7.29	6.97
Hemp ... ..	...	...	07	...	...	...	...	...
Mustard	03	02	02	51	...	11	01	02
Carrots	10	05	22	12	01	07	...	...
Others	80	03	21	34	28	33	51	1.19
Total of Class II	6.12	12.30	5.75	10.11	8.93	9.20	9.15	10.87
CLASS III.—								
Jowar	18.18	30.98	2.53	18.16	21.63	21.12	23.42	21.50
Bajra	19.92	14.57	30.39	12.22	6.06	12.82	10.89	11.41
Mung	95	96	08	99	68	83	1.98	89
Moth	6.66	1.85	23.06	3.13	1.30	3.83	9.58	3.25
Kangui	21	...	...	...	...	03	03	03
Til	8.16	6.05	76	9.84	6.88	7.23	12.29	7.13
Gwar	77	...	02	32	16	26	56	...
Chanola	25	03	05	17	02	00	36	22
Marua ... ..	...	...	...	01	...	...	01	...
Kulath	41	01	03	10	20	25	1.21	12
Urd... ..	...	...	16	61	01	01	14	02
Total of Class III	55.84	51.18	57.92	45.25	36.91	46.77	69.50	44.87
Total District	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
PERCENTAGE OF.—								
(a) Kharif Crops	72.58	70.21	66.16	69.86	68.11	69.61	72.49	68.17
(b) Rabi Crops	27.42	29.79	33.54	30.14	31.89	30.36	27.51	3

Soil.	Areas assessed.	Revenue.	Average Rates.			
			Rs.	A.	P.	
Chahi	Acres. 5,172	Rs. 23,583	4	8	11	(4.56)
Talabi	166	659	3	15	6	(3.97)
Abi	1,226	1,606	1	5	0	(1.31)
Barani	16,000	7,022	0	7	0	(.41)
Total	22,564	32,870	1	7	4	(1.46)

152. In the actual rates for each individual village there must be some appreciable diversity. But for the present purpose of a set of general average rates for the circle, I think that for it as a whole the proposed general standard of forty per cent. of the net assets (paragraph 148) will leave a sufficiently adequate margin, and, in fact, in view of the quality of its better villages and its exceptional position, even a somewhat fuller percentage of the assets may be taken.

The half net assets of the circle amount to Rs. 43,382, as

Crops.	50% Net Assets.	Incidence.	shown on the margin in detail, with their crop class incidences on the average matured (<i>bud</i>) cropped areas.
I.	Rs. 33,066	Rs. 4.19	
II.	2,041	1.61	
III.	8,275	.71	
Total Rs....	43,382	2.09	

On the average cultivated area (21,295 acres) of the five selected years, the incidence of these half net assets is Rs. 2.04, as compared with Rs. 1.46 of the current fixed revenue, and with Rs. 1.69 which would be the incidence of the revenue (Rs. 36,183) on the present cultivated areas (21,295) given by the last Settlement rates raised by twenty per cent. (*vide* Appendix XVII).

This sum of Rs. 36,183 represents some forty-two per cent. of the total net assets (Rs. 86,761). Forty per cent. exactly of the latter is Rs. 34,706, the incidence of which on the present average total cultivated area is Rs. 1.64.

Taking forty per cent. only of the net assets, we get the following figures:—

CROP CLASS.	Half Net Assets Incidence.	FORTY PER CENT. NET ASSETS RATES IN—				Bud cropped areas.	Revenue.	
		Decimals.	Rupees annas and pies.					
			Rs.	Rs.	A. P.			
I.	4.19	} Reduced by 20 per cent.	= 3.35	3	5	9	7,895	Rs. 26,522
II.	1.61		= 1.29	1	5	0	1,269	1,666
III. ... ..	.71		= .57	...	9	0	11,587	6,518
Total	2.09		1.67	1	10	9	20,751	34,706

Or, taking the rates in round figures, viz., Rs 3-6-0, 1-5-0 and 0-9-0, we get a standard revenue of Rs. 34,830.

These crop-rates give the following soil rates (in round figures) on the net cultivated areas :—

SOIL.	Areas in acres.	SOIL RATES IN—					Revenue.	Last Settle- ment rates + 20 per cent.
		Decimals	Rupees, annas and pies.					
		Rs.	Rs.	A.	P.	Rs.	Rs.	
Chahi	4,586	5.31	5	5	0	24,363	5.47	
Talabi	231	4.70	4	11	0	1,083	4.77	
Abi	1,214	1.50	1	5	0	1,821	1.57	
Barani	15,264	.50	0	8	0	7,632	.53	
Total	21,295	1.64	.	...	...	34,899	1.69

At the end of this set of figures the last Settlement rates enhanced twenty per cent. are shewn for comparison with these soil rates.

Taking, however, some eighty-four per cent. of the net assets, that is reducing these by one-sixth only instead of by one-fifth, we get the following figures:—

CROP CLASS.	Half net assets Incidence.	Half net assets incidence reduced by $\frac{1}{6}$ in—					Areas.	Revenue.
		Decimals.	Rupees, annas and pies.					
	Rs.	Rs.	Rs.	A	P.	Rs.	Rs.	
I	4.19	3.49	3	8	0	7,895	27,633	
II	1.61	1.34	1	5	0	1,269	1,666	
III ... ..	.71	.60	0	10	0	11,587	7,241
Total	2.09	1.74	..	....		20,751	36,540

and these rates of Rs. 3-8-0, 1-5-0 and 0-10-0 give the following soil rates :—

SOIL.	Area in acres.	SOIL RATES IN—					Revenue.
		Decimals.	Rupees annas and pies.				
			Rs.	Rs.	A.	P.	Rs.
Chahi... ..	4,586	5.51	5	8	0	25,269	
Talabi	231	4.80	4	13	0	1,109	
Abi	1,214	1.60	1	10	0	1,942	
Barani	15,264	.54	0	8	9	8,242	
Total	21,295	1.71	...	...	...	36,562

These soil rates are slightly higher than those of last Settlement raised by twenty per cent., but this fact is not important as our rates are intended for a fluctuating assessment with reductions for deficiency of area or out-turn.

On the whole, for the present, by way of provisional standards in fixing the rates for the individual villages of the circle, I propose to take for this circle the following average crop rates, per acre :—

Rs. 3 8 0 for Class I crops (ordinary).

„ 1 5 0 for „ II „

„ 0 9 0 for „ III „

with the following special rates (average) for certain of the crops of Class I (A) :—

Rs. 6 0 0 for sugarcane.

„ 7 0 0 for melons, red pepper, tobacco, garden produce and roses and lucerne.

I include lucerne here among the higher-rated crops as in this circle it is largely grown for sale as a source of profit and not merely for the cultivator's own cattle. These special rates are based on the high actual incidences on these crops (*vide* Appendix XV).

These rates will give, in a round sum, some Rs. 36,000 per annum in fairly good years on present areas of cultivation and irrigation; but this sum will be liable to reductions for exemptions for new wells which I am not yet able to estimate.

153. *The Gangwana Circle.*—The principal figures of this circle are :—

Soil.	Average area of 5 years.	Average area of 15 years.	Assessed at Settlement.	Present Revenue.	Average Rates.
				Rs.	Rs.
Chahi	3,069	2,857	3,549	13,096	3.69
Talabi	784	512	815	2,537	3.12
Abi	1,209	892	1,438	2,172	1.51
Barani	19,454	18,205	21,223	10,620	.50
Total ...	24,516	22,466	27,025	28,425	1.05

(2) Average “*bād*” cropped area, and principal crops :—

Crop.	Areas.	Percentage.	(a) KHARIF.		(b) RABI.	
			Crop.	Percentage.	Crop.	Percentage.
I (A) ...	32	14	Maize ...	7.98	Wheat ...	1.22
I (B) ...	7,810	33.08	Cotton ...	7.55	Barley ...	13.97
			Jowar ...	30.98	Gujai ...	1.67
Total I	7,842	33.22	Bajra ...	14.57	Bejhar ...	3.92
II ...	2,905	12.30	Til ...	6.05	Gram ...	8.28
III ...	12,865	54.48	Moth ...	1.85	Others ...	.73
			Others ...	1.23	...	...
Total ...	23,612	100.00	Total ...	70.21	Total ...	29.79

This is a rather poor circle with very scanty and feeble irrigation; hitherto lightly assessed. Its present irrigated area is nearly 12 per cent. below that of last Settlement, and its present proportion, even in years such as the five selected, of its total cultivated area under irrigation is now less than 16 per cent. The present cultivated area of the selected years is also 10 per cent. below that of the last assessment. The usual *dofashi* area is now 24.5 per cent. of the average irrigated sown area: but the circle's percentage of *rabi* crops grown is below the district average, and its proportion of first class crops grown is the lowest of all the circles, while practically no Class I (A) or kachhiana crops are grown. Barley and gram with a little bejhar comprise the *rabi* crops; jowar and bajra occupy two-thirds of the average *kharif* area. Owing to the falling off of percolation along the big nalas through mauza Gangwana northwards, the wells in a number of the villages have been long useless, and these villages have greatly suffered and deteriorated in the recent series of dry and uncertain years. Good tanks and water courses are not plentiful in the circle, and no great improvement, or permanent protection, seems possible unless the once projected tank in mauza Untra can be constructed. To its construction, however, there are objections on behalf of the Sambhar Salt Lakes. The big new tank made in mauza Kair since last Settlement has unfortunately so far benefitted only this one Jaghir village, through its wells, without bringing any water revenue to Government.

154. The net assets of this circle are Rs. 82,582, and the half net

Crops.	50% net Assets.	Incidences.
I ...	29,498	3.76
II ...	3,790	1.31
III ...	8,003	.62
Total ...	41,291	1.75

assets with their detail and crop class incidences are as given on the margin. The incidence of these half net assets on the average total cultivated area of the five selected years (24,516 acres) is Rs. 1.68, as compared with Rs. 1.05 of the current revenue, and with Rs. 1.27 which would be the incidence of the revenue (Rs. 30,388) on the present cultivated areas (24,516

acres) given by last Settlement rates raised by 20 per cent. (*vide* Appendix XVII).

Forty per cent. of the net assets here is Rs. 33,033 and there is no question of going above 40 per cent. for this poor and precarious circle. Rs. 30,388 above represents only 37 per cent. of the net assets, *i.e.*, roughly 75 per cent. of the half net assets, or the latter reduced by one-fourth.

Taking 40 per cent. of the net assets, that is, four-fifths only of the half net assets and reducing their incidences in the same proportion, we get the following figures:—

CROP CLASS. ...	HALF NET ASSETS RATE REDUCED BY $\frac{1}{2}$ th IN—				Areas.	Revenue.
	Decimals.	Rupees, annas and pies.				
I ...	Rs. 3.01	Rs. 3	A. 0	P. 0	Rs. 7,842	23,526
II ...	1.05	1	1	0	2,905	2,905
III ...	.52	0	8	3	12,865	6,633
Total ...	1.40	1	6	5	23,612	33,064

which give the following soil rates:—

SOIL.	Area in acres.	RATES IN—				Revenue.	Last Settle- ment rates + 20 per cent.
		Decimals.	Rupees, annas and pies.				
		Rs	Rs.	A.	P.	Rs.	
Chahi	3,069	4.75	4	12	0	14,578	4.43
Talabi	784	4.06	4	1	0	3,185	3.75
Abi	1,209	2.20	2	3	0	2,645	1.81
Barani	19,454	.63	0	10	3	12,643	.60
Total ...	24,516	1.34	...	...	.	33,051	1.26

The soil rate of *barani* here is relatively high for the reason that much of it contains Class I crops grown on *barani* lands for want of sufficient irrigation. This area does not appear in the third-crop class area which contains only the *barani* soil growing the third-class crops.

Taking only 75 per cent. of the half net assets, we get rates of Rs. 2-13-0, 1-0-0 and 0-7-6 respectively which give a revenue of Rs. 31,067 and the following soil rates :—

CROP CLASS.	Crop Rate.			Revenue.	Soil.	SOIL RATE IN—				Revenue.
						Decimals.	Rupees, annas and pics.			
	Rs.	A.	P.	Rs.	Rs.	Rs.	Rs.	A.	P.	Rs.
I ...	2	13	0	22,115	Chahi ...	4.43	4	7	0	13,619
II ...	1	0	0	2,903	Talabi ...	3.90	3	14	6	3,063
III ...	0	7	6	6,047	Abi ...	1.88	1	14	0	2,267
					Barani...	.62	0	10	0	12,159
Total ...	1.31			31,067	Total ...	1.27	...	...	...	31,103

As these soil rates here indicated seem to me sufficiently high for this circle, representing as they do a full 20 per cent. rise upon the soil rates of last Settlement, I propose as a present all-round standard to take as the average crop-rates for this poor circle, Rs. 2-13-0, 1-0-0 and 0-7-6.

For red pepper, garden produce including roses, and for sugarcane when grown, I propose to take double the first-class rate here, but for melons, tobacco and lucerne grass, only the ordinary first-class crop-rate.

155. *The Pushkar Circle.*—The principal figures of this circle are :—

Soil.	Average area of 5 years.	Average area of 15 years.	Assessed area at Settlement.	Present Revenue.	Average Rate.
Chahi	945	915	681	2,950	4.34
Talabi	78	61	96	296	3.08
Abi	770	802	977	2,286	2.34
Barani	3,844	3,480	3,565	1,369	.38
Total ...	5,637	5,258	5,319	6,901	1.29

(2) Average *bud* cropped areas and principal crops :—

Crop.	Areas.	Percentage.	(a) KHARIF.		(b) RABI.	
			Crop.	Percentage.	Crop.	Percentage.
I (A)	118	2.18	Maize ...	4.30	Wheat ...	2.07
I (B)	1,901	35.05	Cotton ...	3.84	Barley ...	20.67
			Jowar ...	2.53	Gujar ...	2.89
I ...	2,019	37.23	Bajra ...	30.39	Bejhar ...	2.41
			Moth ...	23.06	Gram ...	2.82
II ...	312	5.75	Til ...	.76	Sugar-cane ...	1.90
III ...	3,093	57.02	Others ...	1.58	Others ...	.78
Total ...	5,424	100.00	Total ...	66.46	Total ...	33.54

This is a very small circle of only nine villages, none of them of any great size, shut in a narrow valley of their own and as a circle dissimilar from the rest of the district. The sloping *barani* soils lining the sides of the valley are practically all sheer sand—the kharif crops are thus nearly all the lower crops, bajra and moth, which, however, grow here well enough in favourable seasons. These heaps of sand, however, act as reservoirs for moisture for the central plain (down which, moreover, runs the Sarsuti Nadi), and this central plain is largely a stretch of good alluvial soil in which the sub-soil usually contains water at an easy depth, or in the surface soil of which there is more often than not enough moisture to grow crops without artificial irrigation. This circle suffers much less in a dry period than the rest of the district; it does best in a year of light rainfall; its central alluvial soils are liable to get quickly water-logged and swampy in years of heavy rainfall; and at all times there is a good deal of saline effervescence on the soil surface from over-saturation, which reduces the crop yield and counterbalances the effect of the usually easy water supply.

The circle is thus unique in showing an increase in the cultivated area over the settlement area of 6 per cent., and in the *chahi* area of over 38 per cent. The total irrigated area is thus now over 18 per cent. of the total cultivated as compared with only 14.6 per cent. then. The circle grows, for the district, a good deal of sugar-cane, and the cane grows ordinarily thickly and without much trouble in its alluvial hollows—while its barley also grows largely in the alluvial soils along the Sarsuti without irrigation.

On the whole, therefore, conditions are somewhat easier here for agriculture: and the percentage of *rabi* crops grown is well above the district average. Nevertheless, the total percentage of the first-class crops is still well below the district average, and the circle grows less of maize and cotton and of the finer kharif crops generally in proportion than any other; the percentage of *dofasli* (*viz.*, 21 per cent. only) also is the lowest of all circles, while the increased figures of irrigation do not really mean very much. What has happened is that in the recent cycle of dryer years and sinkage of the water level, water has had to be hauled up from the lower levels by wells, more or less temporary, to irrigate alluvial soil that would formerly not have required this irrigation, as containing sufficient moisture in itself. This explains the decrease of the *abi* soils in the area figures: and these changes can only be regarded as seasonal variations, not as evidences of permanently established improvement.

Thus any increase of revenue here must after all be based only on the general increase in the cultivated area, taken in connection, of course, with the rise in values.

156. The net assets of the circle are Rs. 20,721 and the half net assets and their crop-class incidences are as shown on the margin. The incidence of these half net asset on the average total cultivated area of the five selected years (5,637) is Rs. 1·84, as compared with Rs. 1·29 of the last assessed revenue and with Rs 1·67 which would be the incidence of the revenue (Rs. 9,144) on the present cultivated areas (5637 acres) given by the last Settlement rates raised by 20 per cent. (*vide* Appendix XVII).

Forty per cent. of the net assets is Rs. 8,288, which would give crop rates of Rs. 3-2-0, 1-2-6 and 0-8-3 per acre. Rs. 9,144 are 44 per cent. of the assets, but this would give rather too heavy an enhancement of the revenue. On the whole, I propose to take the rates of Rs. 3-4-6, Rs. 1-4-0 and Rs. 0-7-6, representing 41 per cent. of the assets. These rates give the following figures and soil rates:—

Crop Class.	Crop Rate.			Revenue.	Soil.	SOIL RATE IN:—				Revenue.
						Decimals.	Rupees, annas and pies.			
	Rs.	a.	p			Rs.				
I ...	3	4	6	6,025	Chahi ...	5·00	5	0	0	4,725
II ...	1	4	0	390	Talabi ...	3·56	3	9	0	278
III ...	0	7	6	1,450	Abi ..	2·50	2	8	0	1,925
					Barani ...	·41	0	6	6	1,562
Total ...	1·56			8,465	Total ...	1·50				8,490

Last Settlement soil rates plus 20 per cent. are Rs. 5·21, 3·70, 2·81, and ·46 respectively.

These rates of Rs. 3-4-6, 1-4-0 and 0-7-6 will be quite high enough as an average standard. They will give (*vide* Appendix XVII.) on present areas an enhancement of nearly 23 per cent. on the current revenue.

For sugar-cane, melons, red pepper and garden produce, including roses, I propose to take in this circle double the first-class crop rates: but for lucerne grass and tobacco only the ordinary first-class crop rates.

157. *The Rajgarh Circle.*—The principal figures of the circle are:—

Soil.	Average area of 5 years.	Average area of 15 years.	Assessed area at Settlement.	Present Revenue.	Average Rates.
Chahi ...	4,077	3,974	4,258	Rs. 965	3·75
Talabi ...	1,208	978	1,839	147	3·88
Abi ...	1,428	1,229	1,903	2,792	1·47
Barani ...	15,515	15,245	17,827	8,205	·46
Total ...	22,228	21,426	25,827	34,109	1·32

(2). Average "bād" cropped areas and the principal crops :—

Crop Class.	Areas.	Percentage.	(a) KHARIF.		(b) RABI.	
			Crop.	Percentage.	Crop.	Percentage.
I (A) ...	47	21	Maize ...	13.08	Wheat ...	2.48
I (B) ...	9,704	44.43	Cotton ...	11.02	Barley ...	14.21
			Jowar ...	18.16	Gujar ...	2.78
I ...	9,751	44.64	Bajra ...	12.12	Bejhar ...	2.68
			Moth ...	3.23	Gram ...	6.46
II ...	2,208	10.11	Til ...	9.84	Others ...	1.53
III ...	9,885	45.25	Others ...	2.51		
Total ...	21,844	100.00	Total ...	69.86	Total ...	30.14

This is an average-sized circle of twenty-six villages, a few of which, e.g., Bhaonta along the Sagarmati, are of very good quality; but there are many that are poor only. 23.8 per cent. of its cultivated area is, on present figures, irrigable, in which respect it is much better off than the Gangwana Circle and about on the same level as the Ajmer Circle. But its villages have not the same natural moisture as those of the Pushkar Circle, while the percolation influence of the Anasagar tank does not now, since the building of the Foyasagar tank above the latter, reach down so far into the villages of this circle ordinarily as it used to, and the proportion of the total cultivated area now irrigated is, even on the average of the five selected years, fourteen per cent. below the standard of last Settlement, when 27.5 per cent. of the cultivated area was irrigated. The present cultivated area is similarly still fourteen per cent. below that assessed at last Settlement.

The circle as a whole grows no sugar-cane ordinarily and very little of class I (A) crops; but, on the other hand, its percentage of the ordinary 1st-class crops grown is above the district average, its percentage of *rabi* crop is up to the average and of the poorer third-class crop is less than the average. Its *dofash* percentage, twenty-four per cent, is average.

On the whole, it is a fair average circle pulled down by a number of poorer villages with poor sandy soil or scanty and feeble irrigation. There is a good deal of good rich soil in the circle, but there are also large, sandy and stony stretches of poor quality.

158. The net assets of the circle are Rs. 89,705, and the detailed

Crop Class.	50 per cent. net assets.			Incidence.
	Rs.	A.	P.	
I ...	36,496	0	0	3.71
II ...	3,254	0	0	1.47
III ...	5,403	0	0	.55
Total ...	44,853	0	0	2.05

crop-class half net assets with their incidences are as given on the margin. The incidence of these half net assets on the average total cultivated area of the five selected years (22,228 acres) is Rs. 2.02, as compared with Rs. 1.32 of the last assessed revenue and with Rs. 1.58 which would be the incidence of

the revenue (Rs. 35,021) on the present cultivated areas (22,228 acres) given by the last Settlement rates raised by twenty per cent. (*vide* Appendix XVII).

Rs. 35,021 is roughly equal to forty per cent. of the net assets (Rs. 35,882), which standard I propose to take here. Thus:—

Crop Class.	Half net Assets Rates.	PROPOSED RATES IN—				Revenue.		
		Decimals.	Rs.	A.	P.			
	Rs.	Rs.				Rs.	A.	P.
I	3·71	= 2·97	2	15	6	289,49	0	0
II	1·47	= 1·18	1	2	9	2,588	0	0
III	·55	= ·44	0	7	0	4,325	0	0
Total ...	2·05	1·64	..	...	.	35,862	0	0

and these crop rates give the following soil rates:—

Soil.	Areas in acres.	SOIL RATE IN—				Revenue.			Last Settlement rates + 20 per cent.
		Decimals.	Rs.	A.	P.				
		Rs.				Rs.	A.	P.	Rs.
Chahi... ..	4,077	4·63	4	10	0	18,856	0	0	4·50
Talabi	1,208	4·75	4	12	0	5,738	0	0	4·66
Abi	1,428	1·78	1	12	6	2,514	0	0	1·76
Barani	15,515	·56	0	9	0	8,727	0	0	·55
Total ...	22,228	1·61	...	...	...	35,865	0	0	1·59

That is, the rates for this circle will average round Rs. 3, 1-2-9 and 0·7-0; will sink to Rs. 2-4-0 or even 2-0-0, and 0-5-0 for the bad villages and rise up to Rs. 3-12-0 and 0-8-0 or 0-9-0 for the good. I propose to take double of these first-class rates here for red pepper and for garden produce, including roses, and for sugar-cane when grown, also for melons in one or two villages; but for melons in other villages, and for tobacco and lucerne grass in all villages, only the ordinary first-class crop rate.

159. *The Ramsar Circle*—The principal figures of this circle are:—

SOIL.				Average area of 5 years.	Average area of 15 years.	Area assessed at Settlement.	Present Revenue.	Average Rates.
				Acres.	Acres.	Acres.	Rs.	Rs.
Chahi ... ..	...	...	...	4,407	3,645	4,603	18,540	4·03
Talabi ... ..	...	...	...	5,917	4,304	6,237	24,203	3·88
Abi ... ..	...	...	...	2,089	1,538	2,014	3,085	1·53
Barani ... ..	...	...	...	25,237	20,076	27,171	16,387	·61
Total ...	...	...	...	37,650	29,563	40,025	62,215	1·55

(2) Average *būd* cropped areas and principal crops :—

Crop Class.	Area.	Per-centage.	(a) KHARIF.		(b) RABI.	
			Crop.	Per-centage.	Crop.	Per-centage.
I (A) ...	49	12	Maize ...	15.70	Wheat ...	5.82
I (B) ...	21,614	51.01	Cotton ...	15.18	Barley ...	13.8
I ...	21,663	51.13	Jowar ...	21.63	Gujar ...	1.94
			Bajra ...	6.06	Dejhar ...	2.52
			Til ...	6.88	Gram ...	6.12
II ...	3,571	8.93	Others ...	2.66	Methi ...	1.02
III ...	14,781	36.94	..	...	Others ...	.61
Total ..	40,018	100.00	Total ...	68.11	Total ...	31.89

This is a large circle and is pre-eminently the circle of large and good tanks. The percentage of the cultivated area irrigated is the same now as at last Settlement, roughly, 27.5 per cent: this is the highest percentage in the district. Cultivation has dropped, but only by six per cent. and probably less, as the Khasras here are defective, and 37,650 acres are probably under the real figures. The circle grows only a very small amount of Class I (A) crops, but, on the other hand, the general superiority of its soils is shown by the unique fact that its crops are much more largely those of the ordinary first class crops than of the poorer third-class crops, the percentage of the former being as high as 54 per cent., while its percentage of rabi crops is also above the district average. It grows the largest percentage of maize and cotton, especially of the latter, a lucrative crop, and its wheat area is also high, almost double the average. Of the 3rd-class crops, jowar and til are the chief. In point of crops, it is in general the best of all the five circles. Its *dofusi* percentage is roughly 24 per cent.

But, comprising 57 villages, the circle naturally varies in quality. There are no specially good villages standing out from the rest, and the bulk of the villages are of a fairly consistent average, with some fair loam soil. But many of them have large stretches of shallow stony soil, and most of them have suffered severely in the recent cycle of dry years. And there are also many villages with a thin sandy soil, which runs in places to absolute sheer sand, of poor productive power; while over large areas the well-water is brackish.

For these poor soils and wells easy rates will be required, and this must lower the general average and seem to pitch it below what the comparatively good crop and irrigation statistics might otherwise appear to warrant.

160. Over the circle as a whole we certainly cannot exceed forty

Crop Class.	$\frac{1}{2}$ net Assets.	Incidences.
I ...	Rs. 79,435	Rs. 3.67
II ...	6,695	1.88
III ...	9,473	.64
Total ...	95,603	2.39

per cent. of the net assets. The latter are Rs. 1,91,207, and the half net assets with their detail and incidences are as shown on the margin. The incidence of these half net assets on the average total cultivated area of the five

selected years (37,650 acres is Rs. 2·54, as compared with Rs. 1·55) of the current revenue and with Rs. 1·86, which would be the incidence of the revenue (Rs. 71,126) on the present cultivated areas given by the last Settlement rates raised by twenty per cent. (*vide* Appendix XVII).

Forty per cent of the net assets is Rs. 76,482, which give rates of Rs. 2·94, 1·51 and ·51, or, adapted to convenient multiples of bighas, Rs. 2·15-6, 1·6-6 and 0·7-6, a revenue of Rs. 76,267, a total circle incidence on the average cropped area of Rs. 1·95 and on the cultivated Rs. 2·03, or over Rs. 2·0-0 and an increase of revenue of nearly twenty-three per cent. These figures are still somewhat high, and on behalf of the poorer villages the first-class crop rates should perhaps be slightly lowered further to Rs. 2-13-0, which reduction would give a revenue of Rs. 72,881, a cropped incidence of 1·82, a cultivated incidence of 1·93, and an increase of seventeen per cent. However, I let the higher rate stand for the present, but in the poorer villages and soils the rates applied will be freely marked down from this level.

Crop Class.	Rates proposed.			Revenue.	Soil.	SOIL RATE IN—				Revenue.	Last-Settle-ment rate + 20 %
						Decimals.	Rupees, annas and pies				
	Rs.	A.	P.	Rs.		Rs.				Rs.	Rs.
I ...	2	15	6	64,313	Chahi ...	5·31	5	5	0	23,412	4·83
II ...	1	6	6	5,026	Talabi ...	5·00	5	0	0	29,585	4·66
III ...	0	7	6	6,928	Abi ...	2·06	2	1	0	4,307	1·84
					Barani ...	·75	0	12	0	18,927	·73
Total ...	1·95			76,267	Total ...	2·03	...	...	...	76,231	1·86

The soil rates thus indicated by these proposed crop rates are high above those of last Settlement enhanced by twenty per cent. but in reality they would not be so high, as the cultivated areas aggregating 37,650 are probably under somewhat owing to some defective Khasras, while the actual crop rates will, as indicated, probably work out lower than the above standard.

In this circle for red pepper, garden produce, including roses, and sugar-cane when grown, I propose to charge double the first-class rates, but for melons, lucerne grass and tobacco, the ordinary first-class crop rate only.

161. The above rates and revenues are shown together in Appendix XVII., but I bring the proposed rates together here for ready reference and comparison :—

[STATEMENT.

STATEMENT XVIII.

Circle.	Crop Class.	Half net Assets In-idence.	Average circle crop rates proposed.	Result-ant Revenue	Per-centage of Assets.	Corres-ponding Soil Rates.	Last Settle-ment Soil Rates.	Last Settle-ment soil rates —20%.
1	2	3	4	5	6	7	8	9
		Rs.	Rs.	Rs.		Rs.	Rs.	Rs.
Ajmer ...	I	4 19	3·50	27,633	...	5·50	4·56	5·17
	II	1·61	1·31	1,666	...	4·75	3·97	4·77
	III	·71	·56	6,518	...	1·56	1·31	1·57
				...	...	·53	·44	·53
Total ...	...	2·09	1·73	35,817	41·28	1·68	1·46	1·75
Gangwana ...	I	3·76	2·82	22,115	...	4·44	3·69	4·43
	II	1·31	1·00	2,905	...	3·91	3·12	3·74
	III	·62	·47	6,047	...	1·83	1·51	1·81
				...	...	·63	·50	·60
Total ...	...	1·75	1·33	31,067	37·62	1·27	1·05	1·26
Pushkar ...	I	3·90	3·28	6,625	...	5·00	4·34	5·21
	II	1·41	1·25	390	...	3 56	3·08	3·70
	III	·66	·47	1,450	...	2·50	2·34	2·81
				...	...	·41	·38	·46
Total ...	...	1·91	1·56	8,465	40·85	1·50	1·29	1·56
Rajgarh ...	I	3·71	2·97	28,949	...	4 63	3·75	4·50
	II	1·47	1·17	2,588	...	4·75	3·88	4·66
	III	·55	·44	4,325	...	1·78	1·47	1·76
				...	...	·56	·46	·55
Total ...	...	2 05	1·64	35,862	39·98	1·61	1·32	1·59
Ramsar ...	I	3·67	2·97	64,313	...	5·31	4·03	4·83
	II	1·88	1·41	5,026	...	5·00	3·88	4·66
	III	·64	·47	6,928	...	2·06	1·53	1·84
				...	...	·75	·61	·73
Total ...	...	2·39	1·95	76,267	39·88	2·03	1·55	1·88
Total District	I	3·78	3·04	1,49,635	...	5·00	4·06	4·87
	II	1·58	1·22	12,575	...	4·81	3·81	4·57
	III	·64	·48	25,268	...	1·92	1·58	1·90
				...	...	·62	·51	·61
Total ...	...	2·11	1·68	1,87,478	39·81	1·68	1·36	1·63

In addition to the above it is proposed to charge double the ordinary first-class crop-rates for sugar-cane, garden-produce including roses, and red pepper, in all circles, for melons in circle Ajmer and Pushkar, and for tobacco and lucerne grass in circle Ajmer.

These doubled rates will add about Rs. 1,000 to the above estimated revenue, bringing it up to Rs. 188,478, that is, the level of the full 40 per cent. of net assets. There will be also some slight income from assessable *Sivai* items, e.g., *Aira* grass in the Pushkar Circle, raising the total up to roughly Rs. 1,90,000 for the Ajmer District. On the other hand, there will be some deductions for new wells, etc., and "lift" irrigation, which I cannot estimate at present, but which we may put for the present at Rs. 10,000, leaving a net sum of Rs. 1,80,000 accruing on present areas

Statement XIX.

Period.	Chahi.	Talabi.	Abi.	Barani.	Total.
Mr. LaTouche's assessed areas ...	18,553	8,365	7,746	74,256	1,08,920
Mr. Whiteway's assessed areas ...	18,237	9,263	7,630 3,366	85,956	1,24,452
Actual Milan Khasra of 1885-1886 ...	21,822	8,328	7,303	78,987	1,16,440
Average last 15 years (1300 to 1314 Fash)	15,560	6,018	5,597	69,994	97,169
Average of five selected years ...	17,084	8,218	6,710	79,314	1,11,326

Mr. Whiteway, according to his own figures (para. 87 of his report) raised the total demand from Rs. 1,52,039, as he apparently found it, to Rs. 1,65,625 (exclusive of some further revenue on 3,366 acres of variable *abiland*), though, from the statement in paragraph 277 of Mr. LaTouche's final report it would appear that the latter had assessed a total of Rs. 1,42,896 only as revenue, exclusive of cesses.

But, whether the actual amount added by Mr. Whiteway's revision was Rs. 14,000, or Rs. 24,000, the fact remains that his resultant demand has, I think, owing to the persistently lower levels at which the actual cultivated areas have remained, already discounted, for the purpose of a fixed average demand over a period, the subsequent rise in values up to the present time, and from this point of view still represents practically a maximum average not yet enhanceable.

ASSESSMENT OF THE JAGIR VILLAGES, AND MUAFI LANDS, FOR CESSES.

163. There are two questions connected with the nominal assessments on the Jagir villages, for the purpose of determining the amount on which to take the Rs. 3-2-0 per cent. district cess, on which I solicit orders.

These questions relate to (1) the standard, and (2) the system, of these assessments.

As regards the former the existing nominal assessments, which now stand in the aggregate at Rs. 65,911, carrying total cesses of Rs. 2,060, are really still Mr. LaTouche's, having been raised to their present figure in 1889, merely by the assessment of new *barani* lands at the old rates. Mr. LaTouche—*vide* paragraph 281 of his report—applying the revenue assessing rates of the Khalsa villages, but, as he says "leaning to the side of severity, whenever in doubt," arrived at an actual aggregate Jama of Rs. 62,642, a sum which, he said, was "as near as possible one-fourth of the estimated value of the gross produce."

The question is, presuming that the nominal Jamas again to be worked out for these villages are to be "fixed" for a term of years, am I now to maintain this standard of one-fourth of the gross divisible produce, or am I, as in the Khalsa villages, to take one-sixth only of the gross divisible produce as ordinarily the maximum standard for the Jama?

The second question is, am I to work out for each Jagir village a "fixed" Jama, as before, on the ordinary lines of a fixed assessment, or shall the fluctuating system be extended to these villages also, a nominal half-yearly Jama in each case being worked out at every harvest as in a Khalsa village and the amount of its cess thus determined?

164. If the assessments are to be "fixed" as before, then completely new assessments worked out on the basis of a rigid one-sixth stan-

dard—*vide* Appendix XVIII, showing the average gross Produce and Net Assets in these Jaghir villages for the last twelve years, 1895-1896 to 1906-1907—will give no increase in their nominal jama and amount of cesses. A full one-sixth of the average gross divisible produce there indicated is Rs. 61,922, only: or, even if we take into account the value of bhusa and straw, at ten per cent. on the grain value of the crops concerned, it is Rs. 65,761, as compared with the Rs. 65,911 now current.

On the other hand, an assessment at one-fourth of the value of the average gross divisible produce would give an aggregate nominal jama of Rs. 92,883, with a large enhancement of nearly Rs. 27,000 or of forty-one per cent.

The matter is merely one of cesses, which are all comprised here in the comparatively easy figure of Rs 3-2 per cent. only of the jama. This figure is low as compared with the cesses that prevail elsewhere; and these Jagirdars contribute nothing more than this for the protection and other advantages which they enjoy equally with the surrounding revenue-paying villages. And they have generally not assisted, with the readiness of the Khalsa villages, to expedite the current survey and record-writing operations; of which moreover in these villages the Government has to bear the whole cost with no possibility of recouping itself from any enhanced land revenue. There is thus no call for any leniency in fixing their nominal jamas.

If, however, the harvest-to-harvest fluctuating system proposed for Khalsa area were to be extended to these villages, the same Khalsa standard, of one-sixth only of the produce, and the Khalsa rates should, I think, be applied; and the nominal basis for the application of Rs. 3-2 per cent. could be worked out at each harvest without much further trouble to the Assessing Officer. But I do not recommend fluctuating assessments twice a year for these Jaghir villages. The amount at stake is not large, and the more that they are left alone, I think, the better.

I propose, therefore, subject to orders to the contrary, to make a fixed assessment for a period for these nominal jamas for calculating these cesses and to make these cess amounts "fixed" also. This leaves the first question of the "standard," however, still open.

As regards this, I would, on the whole, suggest, that for a fixed assessment also the Khalsa one-sixth standard only should be generally applied, but that in this case I should, while employing the rates of the surrounding Khalsa villages of similar quality, suitably enhance these rates in any case where the unenhanced rates would produce a jama less than that now current; that is, where an increase on the current jama of any of these villages is possible, the new assessment will be made on the same standard of one-sixth as in the khalsa area; but where on this standard no increase is possible, and where there has been no marked physical deterioration in the village, and its current Jama does not exceed Mr. LaTouche's standard of one-fourth, this current jama will not be reduced.

There is a good deal of *Muafi* lands (scattered in 101 villages, both Khalsa and Jaghir), paying the same cess, to an aggregate yearly total of Rs. 827. I think that these also may each be given a fixed nominal assessment and a fixed amount of cess, as heretofore—this amount being determined in the same way as suggested for the Jaghir cesses.

SUPERVISION AND STAFF.

165. Simple as I have tried to make the assessment system proposed, and simple as it really is, in the circumstances of a through-going fluctuating system, I have no confidence that it will work successfully and without abuses, unless the existing arrangements of Ajmer-Merwara in the matter of supervision are either materially changed, or strengthened and improved.

Mr. Whiteway imposed a fluctuating system on 61 villages: it is now proposed to impose a fluctuating system on 469 villages, on the whole Khalsa area of both districts.

Mr. Whiteway drew attention to the great and pressing need of supervision. He anticipated (paragraph 69 of his report) even in regard to his own restricted scheme "that its annual administration will involve considerable difficulties." As he further remarked, however, the chief or "sole difficulty is one of supervision and administration."

This matter is so much more important now than then, that I quote also the following from his same paragraph, in order to emphasize the matter.

"To put it plainly, the junior executive officers on whom all supervision of details will devolve, are sent here to learn their work first and to do it afterwards; and if the rapid change of assistants, which has occurred here for some years, goes on, all hopes of any continuous supervision of petty details, on which alone success depends, must vanish. Even with the staff of Supervisors appointed it is inevitable that without this supervision the assessment of the variable revenue will fall more and more into the hands of the Patwaris, who would soon see the advantages to be gained, and both the Government and the zamindars would suffer. Should the new appointment I have recommended be sanctioned, and it be an appointment worth the while of a good man to keep, some of the difficulties would undoubtedly disappear. Even at its best, to successfully work it, the scheme requires the careful and intelligent supervision of the executive staff, a supervision which must be exercised over petty and often wearisome details. The foundation of the whole is the patwari's annual record of cultivation, and if this be incorrect the whole super-structure built on it will be worthless."

The new appointment recommended was made; an Extra Assistant Commissioner for revenue work being appointed. This remedy, however, has been at best a partial one only. The appointment has hitherto been a backwater only, with no incentive of future prospects to maintain any enthusiasm for the work in the incumbent, and it has tended to aggravate still further the evil of the divorce of the head of the district, the Collector, from real active share in the revenue administration.

166. Connected with the revenue administration of Ajmer-Merwara there are :—

- (1) A Collector in each District,
- (2) The Revenue Extra Assistant Commissioner,
- (3) The Tahsildars and their Naibs,
- (4) The Girdawars,
- (5) The Patwaris,

First, as regards the Collector—there is a rule, No. 17 of the current rules for the variably assessed villages, which reads :—

"(17) The assessments shall be made under the superintendence and order of the Collector."—

and throughout, of course, the Collector's ultimate responsibility remained. And there are, it is true, notable cases when one or two Collectors (*e.g.*, the present Commissioner of Ajmer Merwara, when Assistant Commissioner) have taken an active part either in the check of the assessments or in the supervision of the revenue work generally. In general, however, these efforts have been at most fitful and spasmodic, and have had no permanent effect in retarding the tendency to leave everything to the Revenue Extra Assistant Commissioner as the sole assessing and supervising Officer—a tendency practically inevitable under the local conditions which have obtained.

Thus—*vide* the Annual Administration Reports of the districts for the twenty years since 1886-1887—the office of the Collector of district Ajmer has changed hands twenty-eight times in nineteen years (no returns are given for 1900-1901), the office of the Collector of Merwara

has changed hands forty-two times in eighteen years (no returns given for 1900-1902), while even the Commissionership changed hands twenty-six times in twenty years.

Even allowing for Officers returning at subsequent periods to charges which they had already previously held, there have been at least twenty different officers as Collector of Ajmer in the last twenty years, twenty-four different Officers as Collector of Merwara, and seventeen different Commissioners.

That is, the average incumbency in the office of Collector has been—ever since Mr. Whiteway at last Settlement pointed to the “rapid change of Assistants,” even then noticeable—in Ajmer eight months, and in Merwara five months only.

This means that a new Collector taking over charge can in most cases barely have had time to make himself acquainted with the pending questions of his office and to keep the routine work there going before he has had to make over charge again to a successor. In most cases he can have found no time to look round and personally acquaint himself with the actual workings of the revenue system, and with the character of the work of his subordinate revenue officials, from the Revenue Extra Assistant Commissioner downwards.

Even if we look at the question from the number of actual different officers who have held these posts of Collector in Ajmer and Merwara, *viz.*, twenty in the former and twenty-four in the latter district, yet even the average duration per individual officer in Ajmer is twelve months only which was, however, split up into broken periods, and loaded with all the disadvantages of temporary and officiating arrangements and their effects upon the work :

Moreover, the position is aggravated by the facts: (1) that most of the officers who have been Assistant Commissioners of Ajmer-Merwara have been officers whose previous service had been spent, practically all, if not exclusively, in Military Service and in Political Appointments, and (2) that the remaining officers, Civilians of my own service, come from all Provinces of India. The former officers probably become Revenue Officers for the first time when they come to Ajmer-Merwara. The latter, the Civilians, even though experienced in revenue work of their own Province, have had still to learn the local problems.

The inevitable consequence has been that the “superintendence” of the Collector of the rule 17 quoted above has been almost throughout purely nominal. Instead of being the Collector’s personal Assistant only for revenue work, the Revenue Extra Assistant Commissioner has displaced him, as a general rule.

167. Next, as regards the Revenue Extra Assistant Commissioner—this post, as at present constituted, is, as already remarked, a backwater only, the end of all things to the incumbent. The other Extra Assistant Commissioners of Ajmer-Merwara can look for various steps of promotion in ordinary course and may be even recommended for appointments with even more prestige and emoluments in Native States. In the case of the late incumbent of this office circumstances, both at his appointment and throughout, were against the question being even raised of the possibility of his transfer to any other post. I by no means wish to imply that the late incumbent of this office in any way neglected his duties : on the contrary, I think, that he did his best in difficult circumstances to make the variable system a success. But I consider that (1) the absence of all incentive due to the shutting out of all hopes of further promotion, (2) the relaxation from above by the Collector of supervision over, and interest in, the work, (3) the gradual unconscious devolution of all duties connected with the whole revenue work in the whole two districts to the one Revenue Extra Assistant Commissioner, (4) the large, and, it must be said, physically unmanageable, size of the tract, some 110 miles in length and most of it difficult ground, and (5) the taking up of the time of the Girdawars and Patwaris here in the work of the

collection of the land revenue, have undoubtedly affected adversely the character of the supervision exercised over the Girdawars and generally of the whole revenue work in Ajmer-Merwara. The charge has, in fact, been too large for one man to carry out its duties really efficiently.

Thus Merwara has hitherto been able to receive very little attention from the Revenue Extra Assistant Commissioner in the past in the way of actual inspections. His visits have been very few and far between and, when they did take place, seem to have been of the nature of hurried dashes there and back. Some of the consequences of this neglect of Merwara, owing to the greater calls of the Ajmer district with its variable assessments and the work of the head-quarter's office, are that the Beawar and Todgarh tahsils have all this time been keeping up different forms of the Jinswara statement, and that the Mutation work generally is largely in arrears—while in both districts alike, the important work of keeping up to date the village maps, even in accordance with the orders that existed, has most certainly not received steady attention.

168. The Tahsildars and Naib Tahsildars are concerned mainly with the collection of the revenue, with case work as Munsifs, and with executive matters: in their duties connected with the check of the revenue records they would naturally take their cue from the attitude of the Revenue Extra Assistant Commissioner or the Collector. The mutation work of their circles depends on whether the patwaris report all changes in the proprietary bodies of their villages, though they should be made to see that the patwaris strictly observe the rules.

The Girdawars' work in the past has evidently been generally perfunctory and slack. But they, with the patwaris, are handicapped in performing their more legitimate duties by being used as the chief agents for getting in the Land Revenue. And there is too much a tendency to regard the Girdawar's land and revenue records' work as not the most important part of his duties. Thus, for practically the whole time that the current Settlement operations have been going on in Ajmer-Merwara, the Girdawars have had no connection with the Settlement work and have received no training in the map-making and record work, and may perhaps receive none in the system of assessment, and yet these are the men whom we shall have to leave behind whose primary duty it will be at first hand to see that the new maps are kept promptly and correctly up to date, that the new khewat is thoroughly understood and kept up properly, and that the Khasra, on which the whole system of assessment depends, is correctly and honestly compiled. I mention this, not in any carping spirit—the threat of impending famine and continuance of distress have been responsible for their absence from the Settlement department—but, in order to ensure improvement in the future, the duty must not be shirked of setting forth clearly the present position.

The present Girdawars are some of them bad material only. Better pay and prospects should gradually be provided and a better class of men, more energetic and younger, attracted, preferably candidates holding diplomas from some agricultural college. At present, some of these Girdawars get only rupees twenty-five pay with no allowances, *viz.* little more than the first grade patwaris, and except the "gentleman ranker" as it were, the ordinary Girdawar has no prospects of promotion beyond rupees forty at the end of his service. But the Girdawars generally must be kept more on the move round and round their circles: they must be made to brush up their survey knowledge and to see that the patwaris are correcting their village maps harvest by harvest, and their check of the Khasras must be severe and searching, and must be done over the fields themselves.

As regards the patwaris, these are in general quite good material: the pay for patwaris here is good—it ranges from rupees twelve up to rupees twenty, while in the United Provinces the maximum pay is rupees twelve only—and attracts an intelligent and perfectly competent type of

man. The very few incompetents should be gradually weeded out ; the rest need only competent supervision to keep them up to their work. At present, however, their circles are on the average much too big, especially in Merwara. Thus, in Todgarh there are circles in which the separate cultivated plots, each with a different number in the khasra, aggregate some 15,000 or even more, much of this cultivated area consisting of isolated groups of fields stranded away over hills in places most difficult of access. The patwari, even with the assistance of a naib, cannot possibly, as a physical feat, get round this vast number of fields at each Girdawari, and it is not too much to say that in the past, in many seasons at any rate, the khasra of such villages has been to a large extent, if not literally "fudged," at any rate not compiled on the spot.

Moreover, a lot of the patwari's time is taken up with the land revenue collections. Apart from explaining the accounts to the individual revenue payers, the patwari is expected to actually collect the money and to pay it, or see it paid, in—although lambardars are appointed for this work and receive five per cent. of the revenue collected.

169. Thus, the present position in summary is, briefly that the Collector is not able, owing to want of time or want of experience, himself to direct the supervision required over the revenue work ; that the one Revenue Extra Assistant Commissioner cannot effectively supervise all details of the work in both districts, at least he has not done so yet, that the supervision over the girdawars has not been as strict or close as it should be, that the girdawar's check work over the patwaris has tended to be perfunctory only, and that the patwaris, some of them at least, have circles even now much bigger than they can properly manage.

I quote here the following remarks by Mr. E. H. Blakesley, Commissioner of Ajmer-Merwara, from paragraph 65 of the Annual Administration Report for 1900-1901 :—

"I have not yet had time to form a reliable opinion on the work"
 "of the Land Record and Land Revenue staff in the very important"
 "matters of inspection and check of patwaris' papers and the assessment"
 "of variably assessed Land and Water Revenue; but what I have seen,"
 "especially in the matter of suspensions of revenue, leads me to think"
 "that there is very much room for improvement in all these respects."

But if the basis of the assessment system proposed is the patwaris' khasra work, the pivot for success is equally the check work done by the Girdawars. It is proposed now to put in force a fluctuating system of assessment in all villages of both districts, and this has most dangerous possibilities if supervision is lax. The patwaris will not be human if some of their number, taking advantage of any chance provided by insufficient checks, do not yield to the temptation of attempting to make money for themselves by either entering wrong figures of crop areas and out-turns in the khasra or manipulating those entered. Further, there is the villagers' point of view. One important reason for dislike on the part of the villagers of a harvest-to-harvest assessment is, as already noticed in this report, that they allege that their interests are put thereby too much in the hands of the patwaris and subordinate staff generally. But relaxation of supervision and check over the patwaris and over the Girdawars will assuredly lead to the patwari becoming too much the *defacto* assessing officer, and providing the villagers with a genuine cause of complaint, thus adding to the ordinary difficulties of the revenue administration the serious political factor of grave discontent among the people. Moreover, the work would be augmented, and perhaps seriously hampered by the investigations into each specific alleged instance of abuse, and again the time and attention of the higher staff be diverted from supervising the rest of the work, to its detriment.

The primary essential need, therefore, is that the Girdawars shall be efficient checking officers over the patwaris. This must be recognised as their most important function, and nothing must be allowed to

interfere with its due performance, at any time but more especially in bad years and in famines.

Next, these Girdawars must be themselves closely supervised. The tendency in the past has been, I think, too much for superior officials to devote their attention to the patwaris' work only, and not to check the Girdawar's check work. In the draft rules, however, which I have under contemplation, the duties of all concerned in this matter will be made clear.

I also intend to submit proposals for re-allocating the patwaris' circles, cutting down their present limits where this seems required, abolishing naib patwaris generally, but providing for these new independent circles, and probably increasing the total number of the circles to some extent. At least two more Girdawars also are really required even to cope with the present work, so that we may allow the registrar Girdawars to confine their whole attention to their office work instead of making them try to do both out-door and in-door work indifferently. Proposals as regards these matters will also be submitted separately. For the present I confine myself to the question of arrangements for supervision over the Girdawars and the work generally by the superior staff.

170. In the first place, for real success, it is the man at the top, the Collector, who, being ultimately responsible for the district from a revenue point of view, must secure and maintain a personal grip on the work. Zeal above means efficiency below; at any rate indifference above will not produce efficiency below. His responsibility ought not to be allowed to drift into the nominal: it should remain real and effective. He should know personally his whole staff, down to the Girdawars at any rate, and should be in a position to intervene actively, with knowledge, at any moment, and see that every one under him is doing his proper work.

This, for Ajmer district as its circumstances are is perhaps a counsel of perfection not really attainable. But if the Assistant Commissioner cannot be freed from some other work in order to find some time to personally supervise his revenue subordinates, or if the exigencies of the political service require that he cannot be usually a revenue-trained officer, or even that he cannot be kept in Ajmer long enough to acquire the necessary revenue knowledge, then it is inevitable that the bulk of the work must be devolved upon some more permanent officer with the requisite local knowledge. There are here two possibilities, one is that he be given, as at present, a Revenue Extra Assistant Commissioner; or, second, that as in other parts of India the subdivisional system be adopted. By the latter I mean in Ajmer that all the Extra Assistant Commissioners (who are here for a life-time) should be connected with the revenue work, each being given a specific portion of the district for the proper control, supervision, and check of the revenue work, for which he would be directly responsible. Each could also, under this scheme, be made responsible for the correctness for each of his villages of the assessing khataunis in the form in which they are submitted to the Collector. This scheme would involve some distribution of other duties, no doubt, among the several Extra Assistant Commissioners, but the result would make, I think, for greater efficiency.

If, however, this suggestion is not feasible, and the Assistant Commissioner must be frequently changed, the only other suggestion I can make is that all junior officers of the Political Department, if likely thereafter to be ever posted to Ajmer-Merwara, should, on entering this department be sent here for six months or a year as joint Assistant Commissioner, first to be trained in the revenue work, the system of records and of the assessment, and in the later stage of their deputation to take actual charge of the work in, say, a portion of the district. But even then, the special Revenue Extra Assistant Commissioner for Ajmer must remain, and his powers and functions be exactly defined, and each succeeding Collector must be impressed with the necessity of making it a matter of personal concern to see, so far as he can, that this Revenue

Extra Assistant Commissioner and his circle inspecting officers the Tahsildars and their naibs, are adequately supervising the Girdawars.

171. The Collector of Merwara, on the other hand, is usually not so overburdened with work that he could not devote a considerable amount of his time to doing the revenue work of his district largely himself. The difficulty here also is, however, that on an average he stays only about five months, and is more often than not a very junior officer absolutely untrained to district work, and, if, as is usually the case, he is a military officer, usually completely unfamiliar with the working of any system of revenue.

If an officer with some revenue training could be always sent to Merwara, or could be kept there long enough to acquire the experience and knowledge necessary for the efficient supervision of his revenue staff, he should be made directly responsible for the revenue assessments and work generally there, being allowed to make his Extra Assistant Commissioner assist him in this. And nothing further would then, I think, be required, beyond of course the unifying agency of the Revenue Extra Assistant Commissioner at Ajmer and the Commissioner in the matter of the records and the methods of assessment.

I am not aware, however, of any immediate change being contemplated as regards the officering of Merwara in the future: but unless the phenomenon of the past of forty-two junior officers, untrained in the functions of a district collector, passing through Beawar within the space of eighteen years, is not to repeat itself, some officer other than the district officer must be provided (though he be made only the Collector's personal assistant in this matter) to keep the revenue work going on the lines laid down, to do the necessary inspections, to have the necessary expert knowledge to check the work of the subordinate staff and to know whether it is up to the mark or not, to deal with the huge bulk of the assessments that will require to be made twice a year, to watch the working of the Improvement Rules, and generally to conduct that supervision over the hundred and one details of the revenue work necessary to ensure that it is proceeding on the proper lines, and that the heavy expenditure, now being incurred by the Government in providing the new maps and the new records and in initiating a new scheme of assessment, is not allowed to vanish into thin air owing to inefficiency.

172. Some such agency is imperative; the point cannot be evaded by the hope (delusive) that the Assistant Commissioner of Merwara under the present conditions that obtain will be able himself to do the work alone and unguided. The interests at stake not only of the villagers but of the Government itself are too important to risk sacrificing, by leaving the revenue administration to the Tahsildars only, and leaving the Collectors, in their learning stages, to their sole guidance. The Tahsildars would no doubt labour strenuously and honestly to ensure successful working of the assessment system, to maintain scrupulous honesty among the patwaris in respect of their khasra work and to protect the villagers' interests, to see that the maps and records generally are kept up, and that the Government also is being safeguarded from avoidable loss. But the position of leaving the Tahsildars alone in practically sole charge of the revenue administration is not to be contemplated.

In order to give the new system and the revenue work generally a fair chance, therefore, the collector of Merwara also must, in circumstances as they are, be given a revenue assistant. Hitherto that assistant has been the one Revenue Extra Assistant Commissioner of Ajmer-Merwara charged with the work of both districts. But hitherto the only real work that one Revenue Extra Assistant Commissioner has had in Merwara, apart from general supervision, which has not been exacting, has been the assessments on the sixty-four variable tanks, and even in respect of these the assessing khataunis have hitherto been submitted to him with all the necessary details worked out by the Tahsildars who have been

responsible for their correctness, it only remaining for the Revenue Extra Assistant Commissioner to apply a little amount of arithmetic to the figures to work out the rates and the actual demands.

But whereas hitherto that one Revenue Extra Assistant Commissioner has had only thirty-seven variable villages in Ajmer and the variable assessments there of sixty-five tanks, the new fluctuating system now proposed will require the assessment of 140 villages in Ajmer twice a year and of 330 villages in Merwara, scattered over a very elongated stretch of country, much of which in Merwara is very difficult of access.

173. Will this one man now be able to properly assess twice a year all these villages, and also exercise an efficient control and supervision over the whole subordinate revenue staff?

Personally I think the task is physically impossible, and that to attempt to carry on, if the universal fluctuating system of assessment now proposed be sanctioned, with still only one Revenue Extra Assistant Commissioner for both Ajmer and Merwara will be either only to court a break-down altogether or at any rate to seriously imperil the chances of its success. The requisite supervision over the Girdawar staff from the north of the Ajmer District to the southern retreats of Merwara will not be exercised, and abuses will arise, leading to either the villagers being over-assessed, or to the Government being defrauded. It has to be remembered that, in order to convince the staff that the master's eye is upon them, actual out-door inspections must be made, more especially and liberally, at assessment time, that is, at and round reaping time, that is again, in about a fortnight to one month at most. But how far round can one man get over 470 villages stretching over 110 miles of country in that very short space of time? He could of course ride through a considerable number in that time, but of what value would be his inspections?

And at other times of the year, there are the village maps and the village records requiring inspections, and some two hundred patwaris, fifteen Girdawars, three Tahsildars, four Naib Tahsildars and other staff to control. It is most essential to take adequate steps to ensure that these new maps and records shall be from the very start of the new Settlement period kept year by year completely up to date. We have introduced a new *khewat* also, a simple thing enough in itself but becoming an intricate and quickly-changing document in a tract where the *Bhayachara* tenure of proprietorship prevails so widespread, with its frequent and numerous transfers and changes; a document of this character to retain its value must be corrected year by year at the time that proprietary changes take place: if the correction is by negligence deferred, the document will tend to come into almost inextricable confusion. A tight control must, therefore, be kept upon the working of the mutation rules by all concerned.

174. In short, it being presumed that the two districts generally will now be brought under fluctuating assessments, and that existing arrangements for their general administration from the revenue point of view cannot be immediately materially changed, the position is this, beyond question:—(1) that the detailed work of the assessments, their inspections and calculations, and of the control and supervision of the revenue staff must in both districts be entrusted to some permanent official with the requisite local knowledge other than the Collectors; but (2) that one man cannot possibly do this work for both districts.

For the present, therefore, under existing conditions, there can be no question—with reference to the recent latter No. 570-115-3, dated the 6th May, 1908 from the Government of India, to the Hon'ble the Chief Commissioner of Ajmer-Merwara—as regards retaining the appointment of the Revenue Extra Assistant Commissioner at Ajmer. If such an official was necessary then, he will be much more necessary now, if the proposed all-round fluctuating assessment system is introduced.

Not only this, but it must be added that it is imperatively necessary that either this Revenue Extra Assistant Commissioner be given an Assistant from the beginning of the new Settlement, or that a separate Revenue Extra Assistant Commissioner be appointed for Merwara.

On present circumstances I wish to urge this new appointment with all the emphasis that is possible—as a minimum requirement to give the new Settlement anything like a fair chance. It will mean increased expenditure, of course, but if the exigences of the public service are such that no revenue trained Collectors can be kept here for any length of time, with sufficient leisure to devote to keeping the revenue administration more in their own hands, the Government must be prepared to face the liabilities thereby involved. But, in the long run, the larger item on the expenditure side of the balance sheet would, I think, be counter-balanced by larger items on the receipt side: an additional Revenue Extra Assistant Commissioner, carefully conducting the assessments, adequately controlling the staff and getting all work properly done, should ordinarily save his own salary, by preventing leakage of the Government's just dues and safeguarding it from unnecessary recurring charges that might arise from neglect. But in any case, it is not the truest economy to shirk expenditure upon efficient supervision.

175. If the proposed system of assessment be approved, or if Merwara is not to continue as heretofore under fixed assessments, I will submit formal proposals with proposition statements for the retention of the present Revenue Extra Assistant Commissioner and for the appointment of a second man; but meantime I would state that my proposal is to continue the present post of Revenue Extra Assistant Commissioner as one for Ajmer District, on the present pay of Rs. 250 × 30 to Rs. 400 and to make a new appointment for Merwara on Rs. 200 × 10 to Rs. 250. The two appointments should be graded together as senior and junior, promotion being ordinarily from one to the other, and the junior post being ordinarily reserved for approved candidates from the ranks of the Tahsildars. The junior Revenue Extra Assistant Commissioner should be subordinate to the senior Revenue Extra Assistant Commissioner, who would have a small central office at Ajmer for combining all returns for both districts for submission to the Commissioner, and such general statistical work in all matters concerning the rules for the maintenance of the system of maps and records, in order to prevent divergence in this matter in the two districts—but in the actual work of the assessments the junior Revenue Extra Assistant Commissioner at Merwara would be responsible only to the Collector of Merwara—the senior Revenue Extra Assistant Commissioner of Ajmer being similarly concerned with the Ajmer assessments only, and being directly responsible for these to the Ajmer Collector.

The statutes and duties, however, of each will be defined in full detail when the general orders on this report are received. It is only necessary to add here that, although the drudgery of the work will be done in each district by these two Revenue Extra Assistant Commissioners, yet the Collectors must not be divested of all concern with the work. I would enforce his complete responsibility in the matter of the assessments. The assessing statements may come up to him with the calculations already worked out—but the actual assessments should be his and be considered as his alone. This is provided by rule 17 of the Draft rules of Appendix IV. And I would like to insist also that the Collector be required to have actually inspected a number of villages at each harvest time himself, and to have checked their Khasras and Khasra-extracts on the spot, and to have examined, at any rate in these villages, the character of the checking work done by the Girdawars.

Lastly, these two posts of Revenue Extra Assistant Commissionerships must in future be graded as part and parcel of the ordinary cadre of the Ajmer-Merwara Commission. It would be an unnecessary mistake to keep them outside as special posts. There is an Urdu proverb to the

following effect, "*bedil naukar, dushman barabar.*" But there is no need to run the risk of producing stagnation in these two appointments. If a junior Revenue Extra Assistant Commissioner exists at Merwara, there will always be a trained successor ready to take up the work of the senior post at Ajmer: and for the junior post at Merwara, any ordinarily intelligent Tahsildar who has had the training of a Naib Tahsildar and Tahsildar should be perfectly conversant with the system of assessments and records and able at once to perform the duties of the post efficiently. The post of the Ajmer Revenue Extra Assistant Commissioner, therefore, need, and should, not be regarded as one in which a man must be kept for his lifetime: on the contrary, the ordinary understanding should be that a man who does good and approved service as Revenue Extra Assistant Commissioner of Ajmer should be eligible for promotion therefrom to higher grades outside with better pay. And such men, when promoted, should with their revenue knowledge be all the more valuable officials in their other posts.

176. I also strongly recommend that for each district a superior grade officer, as a Map and Girdawar Inspector, should be appointed. The primary function of these officials should be to see that the village maps are kept thoroughly up to date, but it should also be part of their duty to make periodical inspections of the registrar girdawar's offices, while at harvest times the Revenue Extra Assistant Commissioner should use them to help in the check of the girdawari khāstras and the supervision of the ordinary Girdawars. These posts should be reserved for men with good survey knowledge and training and of active habits, and these men should be brought in from wherever the best men for these posts are obtainable: the choice should not be limited to the local Girdawars necessarily. They would be required to tour constantly and to make continuous inspections of the maps, to assist and instruct the patwaris in difficult pieces of survey, to see that they make their new traces as required of their maps, when corrections have become thick, and to make arrangements for and take charge of any extensive surveying that might arise out of the ordinary routine. Within a little more than the last twenty years the two districts have had to be twice surveyed and new maps made. The necessity for a third elaborate Survey with all its attendant costs to all concerned and the disturbance that it creates, must be avoided. If with these Inspectors we can ensure, as we ought to expect, that at any future revision of Settlement nothing more than a special check of the ordinary annual map correction work will be required, the expenditure incurred upon their pay will have been well spent.

The patwaris are now being provided with copies of the new maps—working copies on cloth; and these they will be required, as in the United Provinces, to correct, where necessary, in red ink at *each* Girdawari; the corrections being made *directly on to* the map itself, not on to separate slips which have been shewn by experience here to be a snare and a delusion. And ordinarily, continuous map inspection by a good set of the ordinary Girdawars and by the Tahsildars, Naibs and the Revenue Extra Assistant Commissioner should be sufficient to ensure that this object was being fulfilled. But, on present conditions, I have no feeling whatever of confidence in its fulfilment. The Revenue Extra Assistant Commissioner, however painstaking, could himself check only a very limited number comparatively of the 1620 map-sheets from year to year. The present Tahsildar and Naibs (without exception, I think) have had no training in survey; and the work of yearly map correction directly on the maps themselves is a simple art at present quite unfamiliar to the patwaris or Girdawars. Later on, when harvest-to-harvest map correction on the right lines has become a matter of settled habit with the patwaris and Girdawars, these proposed Map and Girdawar-Inspectors may be dispensed with. Till then, however, for the opening years of the new Settlement, at any rate, they are an important necessity. Such Inspectors exist, I believe, in the Central Provinces as permanent staff.

Hitherto the work and offices of the registrar-girdawars have

practically never been inspected. These peripatetic Inspectors should now remedy this defect.

I would propose to give these Inspectors, one a pay of Rs. 75-0-0 per mensem and the other Rs. 50-0-0 or 60-0-0 per mensem, with each a horse allowance of Rs. 20-0-0 per mensem. I would not post them specifically to either district but would put them both under the orders of the senior Revenue Extra Assistant Commissioner, so that they can both be employed at any time where their presence is most needed, but it would be laid down that they should tour and inspect in both districts alike every year.

177. The present patwari school for Ajmer-Merwara at Ajmer must be split up into two branches, one of which must be located in Merwara. Service in Merwara is not popular with non-Merwara candidates, while the Merwara-bred candidates will not come, in sufficient numbers at least, to Ajmer for training as a patwari. But it is important that the almost inaccessible circles of Todgarh should not be left to depend on untrained men. The change which I propose here, however, involves only the insignificant additional expenditure of some Rs. 50-0-0 per annum.

I have already referred (in paragraph 169) to the necessity of re-locating the patwaris' circles, and also those of the Girdawars, to meet the new situation of fluctuating assessments. But there is another matter of which I may make mention here, viz., the question of the future custody of the village records—which has direct connection with para. 3 of the Government of India's letter under reference. All village records are at present left with the patwaris. In my opinion, however, the present system of *Patwarkhanas* is vicious, wasteful and dangerous. I intend to propose that all village records shall be kept in central record rooms of the tahsili and district Offices (the patwari being left with only one ordinary cloth "*basta*"—full of papers, viz., these in current use), and that the registrar girdawar be made the Record-keeper for these; but to help him with this work, and with some compilation work, of which also the patwaris should be relieved and which should be done in the Registrar's office, a muharrir should be given to each of the latter. The pay of these muharrirs, however, should be largely, if not wholly, met from savings upon *Patwarkhanas* in future.

Cost.

178. The apparent additional expenditure which all these proposals just outlined will involve is shown in detail in Appendix XIX; it amounts to Rs. 8,956, i.e., in a round figure, Rs. 9,000 per year. This sum, however, even if it be not really recouped by increased receipts, or by savings elsewhere effected, will be a very moderate one if it produces the results which it is intended to produce; and in any case the bulk of it must be accepted as the direct inevitable consequence of having a fluctuating system of assessment, which necessarily involves increased work, and calls for a greater measure of supervision than a fixed assessment. The only item that could possibly be reduced is that of the Rs. 2,388 for the two Inspectors (*vide* the Appendix XIX), only one Inspector on Rs. 75 being appointed instead of the two proposed, leaving the increased expenditure at a little under Rs. 8,000. But even this reduction I would entirely deprecate. The other items I regard as absolutely irreducible: without the two Revenue Extra Assistant Commissioners, at any rate, in the present circumstances which obtain in Ajmer-Merwara, the idea of working a thorough-going system of fluctuating assessments in all villages had, I think, better be forthwith given up altogether.

I may mention, in conclusion, that the present proposal to have two Revenue Extra Assistant Commissioners is by no means a new one: for among the papers of Mr. Whiteway's operations I find that in his original proposals relating to the superior supervising staff, he also contemplated that there should be two Revenue Extra Assistant Commissioners, one

on Rs. 300 and one on Rs. 250. "In both districts," he wrote, "I consider that a Revenue Deputy Collector, or Extra Commissioner, is needed."

The part of the proposal for a separate Revenue Extra Assistant Commissioner for Merwara was subsequently dropped, apparently in order to concentrate all endeavour upon getting at least one Revenue Extra Assistant Commissioner appointed. But, if in the estimation of my predecessors two men were really required even then, how much greater is the need now, when the experience of the expiring Settlement has, I think, demonstrated that, in the conditions of Ajmer-Merwara where the Collectors cannot be counted upon to do any effective revenue work themselves, it has been physically impossible for the one Revenue Extra Assistant Commissioner to adequately control and supervise in both districts the work even of the existing system, and when we are materially adding to that work by instituting a system which will call imperatively for the closest and most constant personal supervision on the part of some responsible Officer?

GENERAL.

179. Apart from general orders upon the actual system of assessments proposed, as set forth in paragraphs 86, 99, 101, 88 and 143, 90 and 91, 93, 94, 96 and 97, and in the proposed draft assessment rules in Appendix IV, specific orders are requested with regard to the proposals dealt with in the following paragraphs of this report, *viz.*, 26, 110, 111, 112, 113, 114, 115, 116, 163 and 164, 174 and 175, 176 and 177, and paragraphs (17, 20 and 21) of Appendix I.

I would also call attention to the questions raised in Appendix II.

Sanction to the rates set forth in paragraph 161 of the report is also requested; and I further beg to enquire what term of years will be fixed for the new Settlement.

I have the honor to be,

Sir,

Your most obedient servant,

W. J. E. LUPTON, C.S.,

SETTLEMENT OFFICER,

Ajmer-Merwara.

AJMER,
22nd August 1908.

Note on the existing methods of assessment of Tank-lands in Ajmer-Merwara.

1. In the matter of the assessment of tank areas in Ajmer-Merwara, there are already two fluctuating systems in force which are now familiar to the villagers. The detailed rules regulating each of these are given in the Irrigation Rules in Volume H to L of the Ajmer Regulations: but briefly, the distinguishing features of each system is that in the one the water revenue is taken by a rate fixed at Settlement, according to the crop sown, and is levied only on the area actually irrigated directly from the tank, while in the other the rate, within certain limits, is fixed at each harvest, and is leviable not merely on the area actually directly irrigated but on an area determined at each harvest by several considerations. The first system is very simple—the second is considerably complex.

2. Neither system, however, commands the unqualified approval of the cultivators; in fact, notwithstanding its simplicity and straightforwardness, the first system of crop rates, as at present worked, is distinctly rejected by them.

On the other hand, despite its intricacies and their complaints, the villagers nowhere really reject the second system: on the contrary, they admit the principle of the system as sound: their complaints are directed against certain detailed points in its working, not against the principle itself. I have, in fact, nowhere found that where this fluctuating system is in force, the villagers wish to revert to a system of fixed assessment on their tank-irrigated lands.

3. The complaints about the present crop-rate system are three in number. But these again are really concerned only with the working of the system and do not affect its essential principle. They are accidents, as it were, which are easily removable.

The complaints are (1) that the rates are too high and are oppressive, (2) that the same rates are taken for "lift" irrigation as for "flow," and (3) that the cultivators have to pay the full assessments at the rates for a four to five-anna crop as for a fully-matured 16-anna crop. There is, unfortunately, true ground for each of these complaints.

4. Under the rules as they now stand, firstly, no distinction is made between lift and flow irrigation: an acre "lift" irrigation pays the same rates as an acre of "flow" irrigation: secondly, a crop is to be considered as brought to maturity in which the yield, as estimated by the Assessing Officers, that is, in practice the *patwari* only, is anything over 25 per cent. of a full average yield; that is, a four-anna crop is considered as not matured: but a crop of 4 to 5 annas is considered a matured crop, as fully-matured one as a crop of 12 or 16 annas.

5. With regard to the question of the rate for lift irrigation—looking up the papers of the times, I find that under the previous rules in Ajmer-Merwara prior to 1884-1885, the 'lift' rates used to be one-half of the flow rates, and in Mr. Whiteway's memoranda submitting the draft of the proposed new rules, he distinctly states that these also contemplate that the "lift" rates should continue to be one-half of the flow rates.

Unfortunately, however, no definite provision to this effect was inserted underneath the schedule of the proposed revised rates, or at any other place in the rules, and in the subsequent discussions and re-draftings of the original draft, the matter seems to have been lost sight of. The new rules being finally issued without any definite provision as to "lift" rates, have since always been interpreted as prescribing the same rates for "lift" as for "flow."

In all the canal system of the United Provinces and of the Panjab, so far as I have been able to get access in Ajmer to papers relating to them, it is the usual custom for the "lift" rates to be appreciably lower than those for 'flow'—almost invariably the proportion obtaining is one-half. The closest parallel is furnished by the lakes or tanks of the Jhansi and Haniurpur Districts (Bundhelkhand) of the United Provinces on which the 'lift' rates are one-half of the 'flow' rates.

The present anomaly in Ajmer-Merwara is thus an accident only, but the accident has been an unfortunate one, as naturally the cultivator who can get his irrigation only by lift and yet still has to pay the same water rate as his neighbour whose fields are watered for him at much less labour and expense by simple flow, sees injustice only in the contrast.

6. With regard to the third complaint listed in paragraph 3 above, *viz.*, that a full assessment at the full rates is levied on anything above a 4-anna crop, little needs to be said as regards the complaint itself. In theory of course, if there is water in the tank the area sown and irrigated therefrom should come to maturity, that is, a reasonably approximately complete maturity. But in practice this does not always follow,

and various influences may supervene which adversely affect the crops—such as blight, locusts, winds, frost, hail, or the like. Or the crops may even, through getting the permissible number of waterings, not get just enough water, or not get it at just the right time, whereby the yield of produce is diminished. I mean that the crop may result in only an eight-anna one, or a ten-anna one, or a six-anna one even, yet the crop is considered to have matured and has to pay the full rates.

7. But here another, and a serious, consideration comes in, which gives another basis to this complaint. It is this, that inasmuch as these tank lands are under special rules of their own, the ordinary rules for the remissions and suspensions of revenue for ordinary lands are not applied to these tank lands. Whereas, if the land were not irrigated from a tank, and gave only a 6-anna crop the burden of the revenue for that harvest would probably be lightened under these suspension and remission rules. These tank lands have not hitherto received the benefit of these, and thus the anomaly has been possible of lands other than tank lands getting a suspension or remission of revenue, while the tank lands in the same village, which may have equally suffered, have been called upon to pay the full water revenue because their out-turn has been above a four-anna yield. It has thus been an unfortunate result of these special irrigation rules that their application has removed these tank lands from the purview of the more liberal ordinary rules for the suspension and remission of Land Revenue.

It is not enough to say that if the cultivators have taken the water from the tanks, they must pay for it, no matter what the crop out-turn may be, provided it is above four annas of the normal.

8. There remains, in regard to these 1st-class tanks, the question of the present rates.

These are as under :—

STATEMENT I.

CROPS.		Present Rates.			Former Rates.		
		Rs.	A.	P.	Rs.	A.	P.
1.	Ordinary Autumn Crops ...	3	12	0	3	2	0
2.	Cotton	5	0	0	4	4	0
3.	Ordinary Spring Crops ...	5	0	0	4	11	0
4.	Sugar-cane ...	7	13	0	7	13	0
5.	Rice ...	10	15	0	10	15	0
6.	Gardens ...	11	14	0	10	15	0
7.	Lucerne ...	5	0	0	...		
8.	Opium	7	13	0	...		
9.	Sowing watering for Rabi ..	1	4	0	0	12	6
10.	Double Crops ...	...			6	4	0

The rates are, of course, per acre and per acre sown only.

The areas under crops 4, 5, 6, 7 and 8, irrigated from tanks, are very small. The bulk of the sugar-cane grown in the district is grown in the Pushkar valley of the Ajmer tahsil, in the moist alluvial *abi* soils, therefore without tank irrigation.

The effect of the revision of the rates and rules at last Settlement was, it will be seen, to enhance the rates somewhat on all the more ordinary staples of cultivation.

9. For comparison I contrast these tank rates of Ajmer-Merwara with the rates prevalent on certain canals and tanks elsewhere :—

[STATEMENT.

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STATEMENT II.

Ajmer-Merwara 1st Class Tanks.		Ganges & other Canals, United Provinces.		Multan (Punjab) Inundation Canals.		Jhansi and Hamirpur Lakes, Bundelkhand. United Provinces.	
Crop.	Rate.	Crop.	Rate.	Crop.	Rate.	Crop.	Rate.
	Rs. A. P.		Rs. A. P.		Rs. A. P.		Rs. A. P.
Gardens ...	11 14 0					Sugar-Cane	3 5 6
Rice ...	10 15 0	Sugar-cane.	6 10 8	Rice Gardens; Peppor }	2 4 0		
Sugar-cane and Opium,	7 13 0		5 0 0				
Cotton, ...		Tobacco		Cotton		Rice	
Spring-Crops ...	5 0 0	Opium		Sugar-Cane	1 12 0	Tobacco	
		Vegetables		Til.		Opium	
		Orchards				Vegetables	2 4 0
		Gardens				Gardens	
		Water Nuts	4 0 0			Water-Nuts.	
		Rice, and all spring Crops except Gram, Linseed and Peas.		Other Kharif Crops.	1 8 0	All Rabi Crops.	1 14 0
Ordinary Kharif Crops ...	3 12 0	Gram Linseed Peas, and All Kharif Crops, other than those specified above.	2 0 0	Wheat, Tobacco Vegetables and all other Rabi Crops.	0 14 0	All Kharif Crops not specified above.	1 2 0
Lift rates same as above.		Lift rates $\frac{1}{2}$ above rates.		Lift rates $\frac{2}{3}$ above rates.		Lift rates $\frac{1}{2}$ above rates.	
The land pays a dry rate only, additional Land Revenue.		The land pays a wet Land Revenue rate in addition.		The land pays Re. 1 Land Revenue in addition.		The land pays Land Revenue in addition.	

Owing to much dissimilarity of conditions and revenue systems, the last comparative statement does not itself prove anything as to the Ajmer-Merwara 1st-class Tank rates. Nevertheless it does at least suggest that the rates on gardens, rice, sugar-cane and opium are, in the circumstances of the tract, somewhat high. They are at any rate considerably higher than those on the Multan Inundation Canals and on the United Provinces Bundelkhand Lakes. The rate of Rs. 5 also is similarly high as compared with rates on cotton and spring crops, elsewhere than the Ganges Canals system.

10. It is instructive now to compare the rates on these 1st-class tanks with those on the 2nd-class variable tanks in Ajmer-Merwara. As the rates on the latter class of Tanks vary very considerably, not only from year to year on each individual tank, but from one tank to another, the comparison required is best, and only safely, made by observing the effects for a number of years of the application of the actual rates imposed upon the areas on which they were imposed. This is done in the figures now given.

STATEMENT III.

Showing the area irrigated and unirrigated in the rear of the Variable and Crop-rate Tanks in the Ajmer District (Khalsa) together with the demand assessed thereon.

Year (Fasli).	VARIABLE TANKS.			CROP-RATE TANKS.			REMARKS.
	Area un-irrigated (in acres).	Area irrigated (in acres).	Amount assessed.	Area un-irrigated (in acres).	Area irrigated (in acres).	Amount assessed.	
1	2	3	4	5	6	7	8
			Rs.			Rs.	
1305	1,112	11,750	34,017	...	625	2,610	
1306	1,541	7,148	24,850	...	460	2,174	
1307	352	4,521	17,472	...	272	1,011	
1308	3,354	9,275	33,584	...	976	3,737	
1309	249	6,612	22,069	...	459	1,951	
1310	1,425	7,199	25,651	...	646	2,591	
1311	1,726	7,462	27,442	...	369	2,721	
1312	1,442	5,444	21,855	...	269	1,273	
1313	106	1,324	4,635	...	16	85	
1314	406	12,662	37,197	...	963	4,168	
Total	11,713	73,397	2,48,772	...	5,055	22,321	
Average	1,171	7,340	24,877	...	506	2,232	
Average rate per acre	8,511		2-14-9	...	506	4-6-6	

NOTE.—The rates here shown are for water revenue only, exclusive of any Land Revenue.

This statement gives only the actual *talabi* soil areas which year by year for the last ten years have been cultivated as such under the two classes of tanks. The unirrigated is the land demarcated as *talabi* which was not, however, irrigated from tanks in the particular year. But it shows, on the basis of actual facts, that the cultivator of *talabi* soil under a first-class tank has been paying very considerably more for his acre of irrigation than his confrere who can draw his supply from a second-class tank.

11. But again the enquiry is still incomplete. It is possible to suppose, for instance, that the advantages of first-class tank irrigation are greater, or the soil under first-class tanks is superior, and that the profits on first-class *talabi* soil are greater, than those on second-class *talabi* soil, so that the cultivator of the former can afford to pay more than the cultivator of the latter, and he is compensated for the higher rate by a higher yield, or by more lucrative crops.

Whether this supposition, however, has any basis or not, is shown by a further investigation which has been made, the results of which are exhibited in the following comparative statement IV.

12. The figures for this statement have been taken from the statements in the Ajmer-Merwara Annual Irrigation Reports for the eleven years indicated, except that the valuations in column 4 of the statement have been re-calculated at the retail prices referred to in paragraph 118 of the report. Although these retail prices are, of course, above the harvest prices, yet, inasmuch as the same set of prices is used for each of the classes of tanks, this point does not affect the present comparison. The figures for *variable* and *fixed* tanks are not available separately in the Annual Irrigation Reports; the figures for both these classes of tanks are shown lumped together only, and their separation now, which would involve a vast amount of labour of Khasra extraction, is also not really necessary for the present purpose.

It must be remarked further, in passing, inasmuch as the average figures now shown in this statement are much above the average figures shown in the immediately preceding Statement III, that in this present Statement IV, the areas shown are not merely the areas of *talabi* soil irrigated or irrigable, but include the actually cropped and "assessed" areas and the *dofastli* areas. And what the "assessed" area may mean can be seen by a reference to the Irrigation Rules, more especially to rule 16.

13. This statement lends no warrant to the supposition that the lands under 1st-class tanks give a better yield or give more valuable crops than lands under the 2nd-class tanks.

On the contrary, its figures conclusively, I think, prove the direct reverse of that supposition. And from my own observations at inspections I can add without hesitation that the *talabi* soils irrigated from the 1st-class tanks are in general, possible exceptions of a few acres here and there apart, not superior to the *talabi* soils in the rear of 2nd-class tanks.

At any rate, not to press the figures further, the statement shows that, over a period of eleven years out of the past thirteen years at least, the out-turn per average cropped and assessed acre of *talabi* soil has been some 23 per cent. greater in the variable and fixed tanks than in the 1st class tanks, while the average crop out-turn value of an average cropped and assessed acre of 1st-class tank irrigated soil has been some 20 per cent. less than that of an average acre of *talabi* soil of the other tanks.

14. The enquiry can be carried further with a view to demonstrating what should be fixed as fair absolute rates for the *talabi* soils of the several classes of tanks. But even so far as it has gone, the present enquiry proves clearly enough, I think, that when the cultivator complains as he does that the first-class crop rates, as now current, are too high,—that is, high as compared with the average rates levied on 2nd-class tanks—he has at least a solid basis for the complaint.

He says that they are oppressive—at any rate* on an average acre he has to pay Rs. 5-0-6 water-rate and Land Revenue out of his Rs. 18-6-6, which leaves him Rs. 13-6-1, while the cultivator of *talabi* land of other tanks pays only Rs. 3-8-9 out of his Rs. 22-2-1, and retains Rs. 18-9-4.

So long as this difference remains—whether for the moment it be that the variable and fixed tanks' present rates are too low and not that the 1st-class tank rates are too high, or *vice-versa*—at any rate the present 1st-class crop-rate system will not commend itself to the people.

15. The present 1st-class tank crop-rates are based, as already indicated in paragraphs 5 and 8 above, on previously existing rates. The latter had been fixed between 1874 and 1883, on the report of a certain committee which had investigated this and other kindred subjects, about 1876, in the course of whose proceedings high rates had already been advocated as necessary to secure a fair return to Government on its outlay in constructing tanks. In drafting the present Irrigation Regulations and Rules, Mr. Whiteway the last Settlement Officer, was of opinion that even these previous rates were still too low. His discussion of them and his reasons for proposing the present higher rates are given in paragraphs 14 to 18 of his letter No. 125, dated the 24th April 1885, to the address of the Commissioner of Ajmer-Merwara (copy of which was forwarded to the Hon'ble the Chief Commissioner, with the Commissioner's letter No. 520 G, dated the 21st May 1885). But, briefly, his main argument was that the existing rates on 1st-class tanks were lower than the rates paid by the better variably-assessed (Class II) tanks, and should therefore be raised.

16. The argument, of course, proceeds either on one assumption that all Class I. tanks are equal to the best Class II. tanks, or on another that, although possibly not equal, the 1st-class tanks should pay at a higher rate relatively to the 2nd-class tanks, for some such reason as that, in addition to the normal water revenue on the tanks something more should be taken towards the cost of the greater and more recent expenditure by Government in constructing these new tanks.

*(Vide the figures in para. 18 below).

17. But as regards the first stated assumption, it may be doubted whether Mr. Whiteway, had he had the benefit of the figures which have now been given in para. 11 above, would now make this assumption at all, while as regards the second assumption, the question should now be settled whether the assessment of 1st-class tank lands are to be pitched at the same percentage (one-sixth) of the gross produce as that prescribed for all soils in the district generally, or whether at a higher standard, *vide* para. 121 below.

18. The figures given above, in the statements in paras 10 and 11, show the average annual value at retail prices of an acre under 1st-class tanks to be Rs. 22-99; while the water revenue per acre is Rs. 4-6-6. Annas ten (0-10-0) per acre for the land in its dry aspect being added for Land Revenue, the total charge on the acre cultivated and assessed as irrigable is Rs. 5-0-6. Reducing the Rs. 22-99 by 20 per cent. (*vide* para. 121 of this report, to allow for the excess of retail prices) and obtaining Rs. 18-40 as the value per acre to the cultivator we find that the latter has at present to bear a charge of Rs. 5-0-6, or 27-3 per cent. of the value of the gross produce. On the other hand, the 2nd-class and other tanks bear only 15-6 per cent. of the average value of their gross produce, *viz.*, Rs. 27-66 reduced by 20 per cent.=Rs. 22-13; water revenue=Rs. 2-14-9, which, *plus* 0-10-0 per acre as Land Revenue on the land in its dry aspect, gives Rs. 3-8-9 per cropped acre as the impost, and Rs. 3-8-9 (3-547) is 15-6 per cent. of Rs. 22-13.

On the basis of one-sixth of the gross produce as representing the maximum Government demand, it will be seen that Rs. 3-8-9, the present average *land plus water* revenue rate, is, on the recorded figures, just about right for the 2nd-class and other tanks, or, a full one-sixth being taken, the average rate per acre of cropped area should be about Rs. 3-7-0, or in round figures Rs. 3-11-0. On the same basis, the average rate for *land plus water* revenue on a similar acre irrigated from a 1st-class tank should be one-sixth of Rs. 18-40, or Rs. 3-1-3 roughly, say Rs. 3-2-0 only.

19. In sanctioning the rates for 1st-class crops as proposed by Mr. Whiteway and his Committee, and as still current, the Hon'ble the Chief Commissioner wrote as follows (*vide* para. 11 of his letter No. 1112, dated the 10th October 1885, to the Government of India):—

"(11). *Annex C.*—In paragraphs 14 to 18 of his letter,* Mr. Whiteway discusses the proposed rates at full length, and endeavours to show by three distinct methods of proof that the new rates, though higher than those hitherto prevailing are still not unreasonably high. Although I consider that the premises, from which the Settlement Officer starts, are *perhaps of somewhat too sanguine a character*, I believe that his conclusions are on the whole correct, and I propose to sanction the new rates, *at all events tentatively*. Should it be found in the course of a year or two that they press with undue severity on the cultivator, the Chief Commissioner will be able at his discretion to reduce them: but I do not anticipate any such necessity."

These rates, however, although thus tentatively sanctioned only, with some misgivings apparently, have not since come up again for discussion until now, when their reconsideration is forced upon us by the current revisional Settlement operation.

20. But from all that has been given in the foregoing paragraphs, I think that there is no doubt that, relatively to the rates assessed on the other tanks at least, these tentative rates on the 1st-class tank lands have now been shown by actual experience, on the assumption of course that all tanks of all classes are to be assessed with reference to a uniform standard of one-sixth of the gross out-turn, to be too high.

If, however, any standard higher than this is to be fixed for the 1st-class tanks, I would solicit that such a standard should be definitely fixed and announced to me, so that I may proceed to determine the acreage rates accordingly.

21. The principle of adding something, to allow for Government expenditure on "new" tanks (of which description Class I. tanks have hitherto partaken) to the amount of revenue otherwise assessable, is certainly not an unfamiliar one in Ajmer-Merwara. Thus, in the proceedings of Irrigation Committees on new tanks in the Eighties, it is definitely stated as an axiom that "high rates must be charged in order to secure a fair return on the outlay on the construction of the tanks," and Mr. LaTouche, in para. 183 of his final Settlement Report, relates how Colonel Dixon, the great tank builder of Ajmer-Merwara, in conducting a revision of assessment in 1849, added to the sum which he would apparently have otherwise fixed as the *jama* of a village, an amount estimated at 8 per cent. of the sum expended on tanks in that village—that is, presumably comparatively new tanks only.

But I do not know whether this principle would be acceptable to the higher authorities now. Personally I by no means advocate its adoption. In my opinion, all tanks of all classes should be assessed on one and the same basis: the Government should not take a higher revenue proportionately from the newer 1st-class

*No. 125 dated the 24th April 1885, from the Settlement Officer to the Commisiner, Ajmer-Merwara.

tanks, as so called at present, but should be content to recoup itself for its expenditure thereon, as it does in the case of new canals, from the receipts accruing from the ordinary rates on other tanks applied to an expended irrigable area, and indirectly from the diminished expenditure on 'Famine Relief' and diminished losses from remissions of revenue which might otherwise be counted on in the portions of this precarious tract in which the tanks in question did not exist.

22. To come now to the 2nd-class variable tanks, the system under which these are now assessed has undoubtedly worked very well since its institution by Mr. LaTouche, and has secured not only to the cultivators and to the Government in a large measure the advantages of a fluctuating assessment, but has on the whole—an excellent test of its efficacy—obtained the firm approval of the people. Nevertheless the system, as now developed in the existing Irrigation Rules, has or leads to certain anomalies, and the cultivators have certain complaints against it—most of them reasonable complaints, I consider. These anomalies and causes of complaints should now be removed. Moreover, the system is somewhat intricate in its working and, in accordance with more modern-day conceptions, the revenue assessments on these tanks should now be simplified to a considerable degree.

23. As the complaints and anomalies are somewhat numerous, they may best be considered by examining the rules concerned from among the Irrigation Rules applicable.

24. Rule 5 of the Irrigation Rules (page 436 of Volume H to L of the Ajmer Regulations) which contains the essential principle of the assessment of these 2nd-class Variable Tanks, provides that a standard *talabi* area and a standard assessment shall be fixed at Settlement, together with a fluctuating rate which may vary between certain fixed maximum and minimum limits, and that the revenue shall be assessed by this varying rate, which shall rise or fall within its maximum and minimum according to the area to be assessed at each harvest and with reference to the standard area and standard assessment. When at any harvest the assessable area is small, and this, divided into the standard assessment, would give a rate higher than the fixed maximum rate the latter only is imposed and the balance of the rate otherwise indicated is remitted. When, on the other hand, the assessable area is greater than the standard area, and the rate falls consequently below the minimum standard rate, the latter only is to be imposed and the surplus collections are credited to the Government.

25. The application of this system is best understood from observing a concrete instance of an assessment, and such as one is given in para. 264 of Mr. LaTouche's Report. The standard assessment is a lump sum which, by the device of the varying rate fluctuating between the maximum and minimum limits, is to be secured, or at least aimed at, every year. The advantages of the scheme are stated by Mr. LaTouche to be that:—

"First.—A certain amount of stability is secured for the water revenue, for in all ordinary years there will be neither remissions nor enhancements."

"Second.—When water is scarce, it may be safely presumed that those who can get it make larger profits out of it than they can when it is plentiful. In such years they pay a higher price for the water. On the other hand, when water is cheap and plentiful those who get it pay less than the assumed rate. In no case does any man who does not get water pay anything."

"Third.—It is the interest of the headmen and of each zamindar within the minimum, *i.e.*, in all ordinary years, to economize and spread the water, for each man's revenue is lightened thereby, while for the same reason it is the interest of each to bring within the irrigated area all land actually irrigated and to prevent any one of their number from defrauding the Government."

26. This system, on which Mr. LaTouche was complimented by the Government of India for its ingenuity, was most certainly a great advance on anything that had gone before in laying down some workable method of assessing the revenue on tank lands, and has, so far as its scope allowed, worked so successfully that it is now an invidious task to expose its imperfections. But, with reference to the first of the three above advantages stated by Mr. LaTouche, the strain after this stability in the revenue has, I think, acted to rob the system of much of its efficacy in solving the essential problem of proportioning the revenue to the character of the outturn. The first and second advantages stated by Mr. LaTouche really go together and they would no doubt be true, and the system would act in the manner indicated, in a region where pure economics reigned. But it is not safe to assume that the agricultural conditions of Ajmer-Merwara are those of such an "economic" region, and that

the cultivators here are free to sell in the best market and to compensate themselves for a smaller out-turn by a higher price on what they have. In the first place, there is nearly always the village money-lender between them and the free economic market outside. The cultivator does not get past the former into this market with any surplus produce he may have. The money-lender takes over this surplus produce, and generally the whole crop, which the cultivator and his family have already eaten up in anticipation by loans from the money-lender. In the second place, what produce there is in Ajmer-Merwara, in a year of restricted area at any rate, is practically all required as food for the cultivating population itself. There is comparatively very little only that could be offered for sale and bring the producer the benefit of the high prices prevailing.

27. I mean that ordinarily the cultivator's produce is not for sale at all in the sense in which he can secure any real advantage from high prices. On the other hand, the small necessities of life which he requires, but cannot produce himself, also go up in price in tune with other prices—a definite and very real handicap this, as opposed to the above at any rate problematic, if not wholly improbable, advantage—while ordinarily a year of scarce water means to the cultivators in general a reduced area of food crops, possible insufficiency of food, and a probable prospect of want. In such times it is of no use to tell a man who requires two loaves to support life and now has only one, that this one loaf that he has is now worth double, worth as much as the two loaves used to be, in the open market. Even if, in order to reap the advantage of the higher price, he promptly sold his one loaf now for the price of two loaves of a season before, yet he still wants to eat, and, buying something to eat with the price obtained, he could still only buy the equivalent of one loaf back again in the present season. Of course, if he had three loaves, and one of these was not required for immediate necessities, he could sell this surplus loaf and benefit from the higher price. But for the point under consideration—it is exactly in these seasons of scarce water and high prices ordinarily that there is no surplus produce—on the contrary, the usual situation is that the grain out-turn is hardly up to, or is decidedly below, the ordinary requirements.

28. Thus, in the eyes of the people this system of assessment on the second class tanks has the grave defect that in a bad year when the irrigated area is small, and when, even if the out-turn of each acre of this area is good, the total stock of produce for the village is curtailed, the State steps in and exacts a higher rate of assessment—a rate which may be very much greater than in a good year of ample rainfall when a large area is cropped and the village reaps a large stock of food.

29. In a good year, for instance, when the cultivators have had a good harvest and food supplies are plentiful, the rate would be the minimum (Rs. 3-12-0, say), on their tank lands.

The next year is a bad one—the area of produce small and the out-turn not sufficient in the total, though it may be up to the average per individual acre, to replenish the already-depleted food stocks. The cultivators are already discouraged with the unfavourable circumstances of the year and not hopeful of the future.

It is in these conditions that this present system of assessment on these second-class tanks compels the District Officials, in order somehow or other to secure the “certain amount of stability in the water revenue” (advantage *first* of para. 25 above) to step in and impose a rate of Rs. 5-0-0 per acre,

30. The incubus of the standard demand is upon them and they cannot escape it. Their aim must be to get up to that standard demand as near as possible—getting what consolation they may out of the assumption that although the cultivator's stock of grain is small, yet at any rate he could get a good price for it now if he wanted to sell it, and could sell it in the open market.

31. This is not by any means mere *a-priori* criticism of the system. Far from it, it is an actual grievance of the people—in an expanded form perhaps but openly stated by them. No amount of reasoning or argument will make them admit even the theoretical fairness of the position stated in *advantage second* of para. 25 above. The theory of prices, or their effects upon which it is based, they refuse to understand. They see only that in a bad year when their cultivated area is much curtailed and their resources, on which they have to live till the next season, are also, sometimes seriously, diminished, the Government steps in and exacts a heavier water-rate.

They look only at the Rs. 3-12-0 in a good year, and the Rs. 5-0-0 in a bad year—for the same tank, same land and same water, and they simply say that they do not appreciate the situation.

And I do not know that we are right to say, as economists simply, that this grievance is merely a fancied one—in the circumstances of Ajmer-Merwara.

32. There is, however, one way in which the working of this system does produce at times very real inequality which has no argument of economic theory of prices to defend it. This is as follows:—

Under rule 17 of the Irrigation Rules the rate for the Kharif harvest is fixed with reference to two considerations, viz: (1) the actual area cropped in the Kharif harvest, and (2) the amount of water still left in the tank and the prospects of the area likely to be irrigable for the ensuing rabi harvest.

If the area irrigated for the rabi harvest is likely to be large the assessment rate for the Kharif harvest is low, the amount collected for the Kharif is thus correspondingly low, and the amount remaining to be collected from the rabi harvest, in order to realise the balance of the standard demand, will be correspondingly large.

Now take, what is always possible, and has, I understand, sometimes actually happened, a year in which the Kharif assessment rate was pitched low, although the harvest was a good one, because the prospects for the rabi harvest were at the time good, but in which, after the Kharif assessment was made, the rabi crops are adversely affected by frosts, or high winds, or blight or any other influence. The standard demand, however, has still to be made up, and in order that this may be done, a high rate has to be imposed, notwithstanding the poor crops. That is, the poor rabi has to pay for the deficiency in the amount collected at the Kharif, its own relative poverty having to be disregarded because of this spectre of the standard demand.

33. Of course, in the total for the year, it can be argued that things have righted themselves: the disproportionately high rate on the rabi being compensated for by the low rate on the Kharif. And this may be so in theory and for the village as a whole. But the cultivators who pay the high rate at the rabi on scanty out-turn are not necessarily the same cultivators who paid the low rate on the good Kharif crops, and even if they are, the people look not at the low Kharif rate, but fasten their gaze on the high rabi rate on its poor crops, and again see a grievance.

34. And again, as in the case of the 1st-class tank, these tank lands, being under special rules of their own as to what constitutes maturity, do not benefit from the ordinary Rules for Suspension and Remissions of Revenue applicable to other lands. These rules are not at present at any rate usually taken as applicable to tank lands. Were they applied, a six-anna or eight-anna crop only on tank lands also would be entitled to receive the benefit of a proportionate suspension and possible remission. The tank lands are, however, held as governed only by the tank (irrigation) rules and these have no definite provisions for any crops intermediate between four annas and sixteen annas. A four-anna or less crop only escapes—a five-anna, or six-anna crop must be assessed at the same rate as a full normal crop.

The anomaly was thus observed only this year 1315 Fasli, that notwithstanding that lands other than tank lands in some villages being declared to have had only a six-anna or eight-anna Kharif crop, were receiving proportionate suspensions of revenue under the ordinary Revenue Rules, yet the tank lands whose crops also in some cases were appreciably below the normal, were assessed—the area irrigated being small—at the full maximum rate, and the villagers received the call to pay up at once the full assessment at this maximum rate on their tank lands at the same time that they received the announcement of a reduced demand on their other lands.

35. Rule 8 of the Irrigation Rules is sometimes complained about on the ground of delay. It is not always possible for the Revenue Extra Assistant Commissioner, or other officer, to proceed to the spot at once and inspect the crop, and meantime damage may be caused to it by its being left standing too long.

36. Rule 11 is, however, bitterly complained against, and certainly, in its working it has at times caused real hardship and oppression in the recent series of dry years, and gives rise to a genuine grievance.

The rule provides that land assessed at well rates at Settlement may be given tank irrigation, but shall pay for the tank water at the rate of Rs. 5 for the harvest—this rate being in addition to the *chahi* rate already assessed on the land. That is, the cultivator is charged a double wet-rate; he has, anyhow, to pay his Rs. 4 (or more) *chahi* rate, whether his well is working or dry: and, in addition, he has to pay Rs. 5, i.e., Rs. 9 in all at the least for *ekfasli* land—a very high rate.

If he double-crops it he has to pay Rs. 14 per acre in the year, a rent which relatively for Ajmer-Merwara can only be called crushing.

Further, if driven to extremities owing to his crops perishing from want of water, he dares to take tank water for his field without first obtaining permission, he has to pay Rs. 7-8 instead of Rs. 5 extra, that is, Rs. 7-8 in addition to the well-rate of Rs. 4 or more. Rs. 11-8-0 for the one harvest! on land which at Settlement was adjudged to be sufficiently heavily taxed at Rs. 4 for the whole year.

37. The argument on which this draconian measure is based is, of course, that a man with a well shall use that well and so leave the tank water free for other fields not commanded by a well—it is an endeavour to ensure that that precious article in Ajmer-Merwara, water, shall be made to go as far as possible.

At the same time the rigidity of the present revenue system has undoubtedly made this rule oppressive and unjust. If the man's well has water in it sufficient for irrigation, by all means insist on his using it, and discourage him from drawing on the tank supply. But where, as so frequently happens in dry years, the well is dry, surely we should try to let him have the tank water if available, and if we let him have it, we should charge only at the ordinary rates that other cultivators are paying, and at the same time remit altogether his Settlement *chahi* rate for that harvest. He should pay at most his Re. 0-10-0 or Re. 0-12-6 dry rate on the land only *plus* the Rs. 3-12-0 to Rs. 5 tank rate. To crush him with Rs. 9-0-0 or Rs. 11-8-0 is not only unfair but is in the long run bad policy.

38. Rule 16 also produces several anomalies. I have already referred to the question of the "lift" rates; but there is another point in connection with this rule which deserves notice. This is, that the escape *nalas* from some tanks often contain small pools of water, and to utilise this water which would otherwise largely be lost by evaporation, *kacha* "lifts" called locally "*odhs*" are constructed. These *odhs*, however, are counted as wells under this rule, and again the full tank rate is taken.

The cultivators themselves have complained to me of this full rate here, and I am inclined to agree with them. The present system discourages initiative on the part of the cultivators to use this escape water. But we ought to encourage them to use it, and, to avoid penalising their enterprise we should let them have the water at an easy rate, say half rates.

39. Closely akin to this matter—though it does not itself fall within the purview of rule 16—is another anomaly which also discourages enterprise and, further, works to the loss both of the cultivator and of the State.

It is connected with the assessment of crops sown in the bed of a tank. Here the soil is generally moist enough to carry the crop, with the help of a little winter rain, through the growing season up to reaping time. On the other hand, it often happens that the crop would be greatly benefited and its out-turn very largely increased by a little timely irrigation, nay, in a dry year, the crop may be saved from entirely withering by a little irrigation. There is water in the subsoil at an easy depth—lots of it—yet if the cultivator digs a pit, a *kacha*, unlined, temporary hole in the ground, and takes water therefrom, this hole is counted as a 'well,' and the full "well" rate is exacted. The effect is that these *kacha* wells are not made, and the cultivator, watching his crop grow up stunted and thin, or actually wither, again nurses a grievance.

In my opinion, however, any harm caused by these occasional 'pits' would be far outweighed by the good they would do, and we should rather encourage the cultivators to make and use them than impose prohibitive penalties on such enterprise.

40. Returning to rule 16.—Clause (2) of this rule causes violent complaints. Under this clause any land lying within the tank area giving an autumn crop, whether such crop be irrigated or not, must be assessed as irrigated and pay a water-rate, if there is water in the tank.

The argument on which this rule is based is (*vide* para. 83 of Mr. Whiteway's Final Settlement Report) that the water was there for use if needed, and that the crop must pay for the protection and security thus afforded by the tank maintained at Government expense. A concession is so far made that a crop not actually using the water pays three-fourths only of the full rate.

The people, however, do not understand, or at any rate, refuse absolutely to acknowledge the fairness of this argument—the taking of any water-rate when no water is taken from the tank. They denounce it in unmeasured terms as oppressive and grasping.

I also think that it is now time to give up this argument—at any rate as inconsistent with the spirit of what should be the revenue policy. Even three-fourths of the full water-rate is too grasping for us to take for what after all we do not give. If the crop can come to maturity without the help of the tank, it means that the season's rainfall is so propitious that nothing further is required. It is nature, and not the Government, that is furnishing the crop's security and protection.

Moreover, the water which is not used up for the Kharif crop is there available for the rabi crop—evaporation is not great at this season, and what water sinks in the soil goes to help the wells somewhere or other, and these again increase the *chahi* out-turn and the total produce—and it can be used up then and help to bring a larger irrigated rabi area to maturity. The State should consider itself as sufficiently recompensed from the latter; it should not show itself to the people as a grasping water purveyor, exacting double payment for the one quantity of water, once for water which it has not supplied. The guise is an unfortunate one of seeming meanness which is totally contrary to its real intentions, and entirely obscures the latter in the eyes of the people, producing only the unhappy result of discontent.

41. Clauses (3) and (4) also of this rule 16 are the subject of complaint, and sometimes do undoubtedly act oppressively. For instance, apart from anything else, if only one watering is received and no winter rains fall, and the crop comes practically to nothing, drying up in its latter stages and giving next to no out-turn of grain—nevertheless, the full area sown has still to pay one-third of the water rate, whatever be the character of the out-turn.

42. Rules 17, 18 and 19 are the rules for the actual assessment of the water-rate for both the autumn and the spring crops. As a perusal of these rules will, I think, show, they are not at once patently comprehensible even to a trained Revenue Official. At any rate they are not easily understood by the cultivators, who, on the whole, entirely distrust them. The only real view which they have about them is that in the general run of things these rules are usually worked to their disadvantage by the Revenue Officials.

43. There are one or two others matters in connection with the remaining Irrigation Rules which merit consideration. For instance, rule 23 is not wide enough: Rule 28 as worked has meant often that such permission is very difficult to obtain: while the watchers appointed under rule 34 are sometimes a fertile cause of grumbling, from being kept on after the tank is empty.

44. But enough has, perhaps, already been written to show that in several essential matters of importance, at any rate, the present Irrigation Rules do fail from the point of view of proportioning the demand to the actual crop out-turn, and that from this point of view they should now be considerably improved or superseded. In essence they are vitiated by two prime defects, viz: (1) they aim too much at stability of the annual water revenue demand, and (2) the basis of the actual demand is the mere sown area and not the crop out-turn. The fetters which, under the first, bind the Assessing Officer down to the standard demand should now be removed: more expression must be given to the principle of elasticity. Secondly, the actual demand should have direct reference to the crop out-turn. This, and not the mere sown area, must be made the basis.

Finally, the present variable system on second-class tanks is over-complex: something much simpler is required.

45. The whole set of these Irrigation Rules—at any rate, so far as assessment is concerned—should be revised. The present classification of tanks into four classes may go. They should all, if possible (and there should be no real difficulty in this) be brought into one class and under one simple system—one which combines with simplicity of working the proportioning of the demand to the actual crop out-turns. Of the two variable systems for tank assessments at present in force in Ajmer-Merwara, neither is suitable as it stands as satisfying this test. What I think is required, as best suited to the precarious and fluctuating circumstances of Ajmer-Merwara, is a system resembling the present crop-rate system on first-class tanks, in taking a rate per crop, or rather classes of crops, on the area sown, but taking the full rate only on the matured cropped area, and otherwise proportioning the actual recoverable demand to the actual crop-outturn on all tanks.

W. J. E. LUPTON, C.S.,

SETTLEMENT OFFICER,

Ajmer-Merwara, Ajmer.

15th July 1908.

APPENDIX II.

Note on the 4th-class Tanks of Ajmer-Merwara, the desirability of these being taken over by the Government: and on the subject of repairing other old Tanks.

1. The fourth-class tanks of Ajmer-Merwara are at present most of them in bad order, and the total area irrigated from them is at present small. But they are numerous (*vide* the figures given in paragraph 16 of the report), and if they were put into good order and made effective in each case for irrigation the average irrigable area could be appreciably increased.

2. These tanks belong to the villagers: they are not at present maintained by the Government. But so long as these remain purely village tanks there is little hope, I think, of these tanks generally being put into, and kept in, decent repair. The villagers generally have neither the means nor the ability to repair and maintain them. Even where the means might be forthcoming, the village organisation, of a vast, incohesive, brotherhood of numerous independent proprietors is against common action and initiation. I have seen many a broken embankment which the villagers could themselves easily enough repair in a few days, if the proprietors could all be got together to turn out and give a day or two's labour to the earthwork, and if a few rupees were expended from the village *Shamlat* fund. But the repairs are *not* done, and the tank lies useless as such for years, while the villagers lament the loss of the irrigation. When questioned in such cases, they say frankly "if Government will do these repairs, they will be done: if Government will not do them, they will not be done."

3. To leave matters as they are, to rely any longer on the illusory hope of the villagers keeping these tanks going, will only mean further deterioration. But in the circumstances of Ajmer-Merwara, it would be a great pity to stand by and see these potential sources, if small yet numerous, of irrigation and protection fall into utter disuse and ruin.

4. These tanks will never be kept really effective until the Government maintains them at its own expense. And I would submit that there is no question whatever that the Government should somehow or other put and keep them in effective use. Any remarks as to the beneficial effect of tanks are of course mere platitudes; but tanks are an excellent form of insurance against famine, while now that a system is being proposed of fluctuating assessments all round, whereby Government will take its revenue as a direct share of the produce of each harvest, Government itself becomes doubly interested from the current revenue point of view in seeing that the irrigated cropped area is increased and kept as high as possible. And it has here, in these fourth-class tanks, a means ready to hand wherewith not merely to increase the tank irrigated areas but to very effectively benefit well-irrigation both above and below the tank itself, as well as to prevent erosion of valuable soil caused by ill-regulated escapes of water which the tanks cannot now retain.

5. The question of the maintenance of the fourth-class tanks must not, however, be looked at solely from the point of view of profit and loss of the Public Works Department. As Mr. Whitway, the last Settlement Officer, wrote in para. 112 of his final Settlement Report on the subject of the management of tanks. "in the administration of the tanks the public works side of the subject must always be subordinated to the revenue side." I commend his whole paragraph 112, for perusal. I mean that the repairing of a now useless fourth-class should not depend on the question as to whether the outlay to be incurred in the repairing is, or is not, more than ten years' revenue in twenty. If by repairing its embankment or digging out its silt, and improving its approaches or escapes, a fourth-class Ajmer-Merwara tank can be made effective as a reservoir for water, the necessary repairs should be made. Possibly the cost might be more than the standard indicated above: but it is not sufficient to look solely at the mere amount of the increased revenue on the extra lands irrigated from the larger supply in the renovated tank. The effect of the latter on the wells also both above and below the embankment must be considered, also its effect in helping the people to build up their credit and material resources in good seasons, and so to tide themselves longer and with less destitution over a period of drought, with the consequent saving to Government of otherwise possible famine expenditure. Its effects may also be even more far-reaching than this in helping towards the preservation of good soil, and towards the growth of vegetation other than crops, *e.g.*, trees with their effects on climate.

6. I think therefore that Government should take over all these fourth-class tanks, that a regular programme should be drawn up for working through each and all of them, at the rate of so many a year until all are in good order, and that the execution

of this programme should be taken in hand as soon as possible and carried through in the shortest number of years possible, and that thereafter these tanks should be kept in repair with the rest of the tanks in the districts.

7. While on this question of tank repairs, I beg leave to draw attention once more to para. 114 also of Mr. Whiteway's final Settlement Report. Much good work has been done during the now expiring Settlement in improving the tanks of Ajmer-Merwara, but while the repairing of existing tanks has by no means been neglected, the work done has been the more largely, I think, in the direction of building new tanks. There are still even now one or two more localities where new tanks could be built; but for practical purposes the possible sites for new tanks are now very few, if not the list has been practically exhausted. In the future, as Mr. Whiteway remarked then, twenty-two years ago, "it is in the direction of improving the existing means of irrigation that the future work of the Public Works Department must be. Much has been done already but much more remains to be done." There is no doubt that this statement of the case is as true now as then.

8. Many of the existing tanks, for instance, have in the course of decades largely silted up: this raising of the bed level allows less and less depth of water below the escape and much valuable water goes to waste.

There are many old tanks in regard to which the villagers clamour for either the embankment or the sluice to be raised—but the cause of the evil has been in practically every case the silting up of the bed, and the remedy is to remove the silt. The villagers cannot, however, do this except under the direction of some responsible authority. Wherever, however, on other grounds, the raising of the embankment or sluice by a foot or yard or so would increase the capacity of the tank without detriment to other interests, the work should be carried out and the expenditure incurred. The project should not be rejected merely because it is not apparent whether the increase of revenue would, or would not, repay the expenditure in some given period. New ducts also are required here and there. In every way it must be the primary duty of the Revenue and the Public Works Department authorities alike to see that the tanks are kept in full efficiency year by year, and that where there are signs of wearing out—and the embankments of many tanks are now very old and several shows signs of wearing out—the parts affected should be replaced by new substantial work. The policy in this matter must be directed on broad general grounds, at any rate not be bound exclusively by considerations of whether the return for the expenditure will, or will not, be so much per cent.

W. J. E. LUPTON, C.S.,

SETTLEMENT OFFICER,

Ajmer-Merwara.

18th August 1908.

Note on the present Variable System of Village Assessments in District Ajmer.

Mr. Whiteway, the last Settlement Officer, introduced a variable system at last Settlement into a portion of the Ajmer tahsil. That system has, however, been so consistently denounced ever since by local officers, and the unfavourable criticisms have been so invariably accompanied by a request for its abolition and replacement by a fixed assessment, that, as I am now myself persuaded that a variable system in some shape or form is still the best suited for Ajmer-Merwara, not merely for particular classes of soils but for all soils in a village, and thus find myself in direct conflict with a large body of past local opinion, it seems desirable to examine somewhat the objections that have been brought to the present system.

2. I do not propose, however, to go through all the detailed objections that have been urged from time to time against it. These are numerous, and not all of equal value: and they are all to be found in the files of the correspondence about Mr. Whiteway's variable system which has gone on during the expiring Settlement period. It will be sufficient, I think, to confine myself to the last most recent Note on the subject, *viz.*, that which formed the enclosure of the letter No. 4-C., dated the 1st January 1907, from the Hon'ble the Officiating Chief Commissioner of Ajmer-Merwara, to the address of the Government of India. This Note seems to contain the chief more important objections: and these may, I think, be summed up correctly in the following statement, *viz.*, that this system was intensely unpopular with the cultivators who were supposed to be benefited by it: and that it would still be unpopular no matter how it was modified: that the system has certain practical inconveniences, or disadvantages, both from the point of view of the cultivators and of the district officials; and that generally the system had proved a failure and was condemned by almost every officer without exception in Ajmer-Merwara who had had experience of its working, and condemned more particularly strongly by those officers who had revenue experience elsewhere.

3. Before proceeding further, however, I wish to say here that, though I agree very largely with these objections—in fact wholly, so far as they relate to the period prior to 1893—yet, with all due deference, I can only entirely differ from the main conclusion which they seem to be intended to indicate, *viz.*, that a variable system of village assessments has been proved by the last twenty years' experience in Ajmer to be unsuited to the tract.

4. The number of villages to which the system was originally applied was 61, and by 1893 this number had, as the result of applications from the villagers themselves, come down to 40, or, by 1894, in the same series of investigations, to 38.

And certainly the system, as it first started, had certain strongly-objectionable features: first and foremost of which was that the revenue had to be assessed by a rising and falling rate. This rate was, no doubt, limited in its variations by maximum and minimum limits, but there was still a standard demand to be worked up to as nearly as possible in good and bad years alike. This system was, in fact, open to all the objections which are now urged in this respect against the similar system on 2nd-class variable tanks (from which, indeed, this village variable system was copied), *vide* paragraphs 26 to 33 of my "Note upon existing methods of tank assessments," forming Appendix I. to the present Report.

5. I need not reiterate here the remarks there made. But this system is certainly one calculated after a few years' experience of it to arouse audible discontent in the minds of an ignorant indigent peasantry impervious to arguments of economic theories. There is, first, reason indeed to believe that under such a system the Ajmer peasants' actual position in a bad year of small cultivated areas, diminished supplies of produce, and of a rising revenue rate, might be very much less favourable than what it might be supposed to be on theoretical grounds. But in any case he would look with pained horror and a vivid sense of injustice only on a rate rising high in a bad year of restricted areas.

6. Secondly, even at ordinary times, the peasantry here live largely from hand to mouth and have to be financed by the Bunias. To such cultivators it is essential to know at the beginning of their agricultural operations what their liability is in the matter of the Land Revenue, so as to be able to make definite terms with their Bania for necessary advances. The actual system of assessment might, however, at the end of the harvest upset completely all their calculations made at its beginning; and in the transactions between the Bunias and the cultivators it is easy to suppose that, if there was any loss to be incurred, this would go down into the cultivator's account and not be borne by the Bunias. This uncertainty of what the revenue might ultimately

work out to, affected also the cultivator's mortgaging credit on his holding. When the revenue per acre might be Rs. 3-12-0 or might be Rs. 5, lenders of money would take care to keep on the right side of the account, and offer only such terms as might seem to the cultivator less favourable than he would get under a fixed assessment system. Being generally hard pressed, however, he would have no option but to accept those offered; but he would not love the variable system any the more.

7. Thirdly, the procedure of working this original system was exceedingly cumbersome. The series of calculations involved in working out the figure of the demand was at any rate usually beyond the comprehension of the ordinary cultivator. These calculations are, it is true, simple enough arithmetic when once the principle is grasped—but the Indian peasant is not a person who will try to understand anything if he has otherwise a prejudice against it. And here the cultivators' one and general feeling was only that in some way or other, and always, he was being 'done' (if I may be pardoned the expression) over his assessment by the patwari and revenue officials.

8. The unpopularity with the villagers of the original system is thus easily intelligible. The reforms of 1893-1894, however, swept away for ever a great deal of the objectionable features: they removed the rising and falling rate and the dependence of the actual demand upon a standard demand: they fixed the assessing rate at one unchanging standard figure, and allowed the actual demand to be determined by actual conditions, so far as areas were concerned—a very great improvement, in that the cultivator could know now from the beginning of the season what his revenue would be, viz., so many times this fixed rate according to the area he cultivated. In fact, these modifications, in my opinion (which I now put forward not on the basis of theory only but from the standpoint of the actual experience of the later part of this expiring Settlement period, as explained later on in this Note) removed very nearly all, at least, of the cultivator's legitimate grievances.

They still, however, left intact the cumbersome procedure of working the system, the proportioning of one soil to another and the reduction of the cultivated area at each harvest to "*dry units*"—a process inevitable perhaps with a system based on a rate purporting to represent the revenue value of land in its dry aspect—but a somewhat tedious and involved process all the same. The system also still has in itself certain other features which, I think, vitiate it, to which I will refer later.

9. Nevertheless, while as regards the actual method of calculations, the cultivator's attitude may still be the same, one of disapproval, I think that I may affirm not only that their old feelings of discontent and resentment against the variable system for village assessments have gradually since 1893-1894, died down, but that, on the other hand—*mirabilia dictu*, perhaps—in their place there has grown up a feeling distinctly in favor of the principle of this variable system, which the villagers do not hesitate to openly express.

10. In the first place, it is significant that since 1894 there have been applications from three villages only for their conversion from variable to fixed assessment—in 1896—and only one village was actually so converted.

Since then the villagers themselves of the remaining villages have ceased to agitate for the abolition of this variable system, apparently, at any rate, for it is, of course, open to any that such applications have ceased only because the villagers know that such were discouraged and would have no success in obtaining sanction to the conversion asked for. But, so far as the villagers themselves are concerned, I consider that such a statement is merely a far-fetched supposition, not yet substantiated at least: on the other hand, it seems to me eminently more reasonable to presume that since 1893-1894, as the modified system got to work and experience accumulated of its results, the villagers have been finding out some, at any rate, of the benefits originally claimed for the variable system.

11. In fact, I think that there is no doubt that this latter presumption really represents the truth of the matter.

Even as regard his own original, unmodified, system, Mr. Whiteway himself (para. 70 of his Final Report) remarked that "it is undoubted that like most novelties it is unpalatable. It will require the experience of several bad years before the whole benefits to themselves have been understood."

Mr. Whiteway's scheme started, I think, with heavy inherent handicaps. The modifications of 1893-1894, removed most or many of these; but "time, the truest schoolmaster" has since done the rest. The villagers have, in fact, learned to appreciate now the variable system. The general run of seasons since 1893-1894 has been bad or poor. At the present moment, at any rate, there is no feeling in these thirty-seven variable villages in favour of a return to a fixed assessment. I have talked much on the subject with the villagers in my inspections; it has been a stock question with me to ask whether the villagers would prefer a fixed or a fluctuating system, and I cannot recall a single instance of one of these thirty-seven villages now under variable

assessment wishing to change to a fixed assessment. On the other hand, several villages now under fixed assessment have asked to be put under the variable system.

12. The present Commissioner of Ajmer-Merwara, Lieutenant-Colonel C. H. Pritchard, can, I think, himself bear me out in the above statement to some extent. We interviewed together, at the end of the past cold weather villagers of the four villages of *Nareli*, *Gudha*, *Goriawas* and *Barla*, assembled together in the last-named village, and discussed with them systems of assessment. Three of these villages *Nareli*, *Barla* and *Goriawas* are already under the variable system, and these at this interview asked still to be kept under variable assessment for the future Settlement. Not only this, but the villagers of *Gudha* which at present has a fixed assessment, also asked for their village to be given a variable assessment. These declarations were, I think, as was remarked at the time, a remarkable testimony in favour of the principle, at any rate, of the present variable system.

It may further be remarked, as significant, that *Goriawas* was one of the villages which applied unsuccessfully in 1896 for conversion to a fixed assessment, while *Gudha* prior to 1893 had been one of the original sixty-one variable villages.

13. The present variable assessment system on second-class tanks also apparently started with much the same prejudice. Thus, in the Annual District Administration Report for 1877-1878, in paragraph 9, the Commissioner wrote, with regard to the variable assessment scheme on tanks introduced by Mr. LaTouche: "The agricultural vicissitudes of the year have done much to teach the zamindars the nature of the variable assessment of water revenue of the larger tanks, devised by the late Settlement Officer, and whereas the system was, up to last *Kharrif*, exceedingly unpopular, it is now generally accepted without demur. The details of its working are somewhat intricate, and it wanted the teaching of experience to explain these details to the zamindars."

The people still have certain objections to this variable system of tank assessment, as set forth in my Note, Appendix I. of this report; but I have not found in any case that they have any objection to the principle of fluctuation itself—on the contrary, none of them wish now to go back to fixed assessments on these tanks: it is only to certain features of the present procedure of working of the principle that they object. On these tanks, at any rate, a fluctuating system has become familiar, and approval has grown out of initial disapproval. The case is the same, I think, with variable assessments on whole villages.

14. The actual system of village variable assessments at present in force can, I think, be still considerably improved upon and simplified: at any rate it has still certain grave defects which should be removed in order to make it satisfy more closely the present criterion aimed at, of proportioning the demand to the actual out-turn. For instance, the present village variable system assesses on areas only, without regard to out-turn, except in the case of unirrigated lands (rule 20 on page 521 of Volume H to L of the Ajmer Regulations): it exacts an irrigated rate from certain lands even though they may remain unirrigated (rules 18 (f) and (l) on page 520, *idem*): it still retains the blight of a "Standard Revenue," and has at times to remit a portion of this "Standard Revenue" (rule 14 on page 519), when the actual fact of any remission being necessary at all means that the portion remitted had never really, in the circumstances of the year, become due; lastly, its rule 21 prescribes a very awkward cumbrous method of working out the assessments, and the final result of it all is that the ultimate assessments may not after all be in very close relation to the actual produce of the harvest.

I would not, therefore, advocate its retention for the future, or its extension to other villages in its present form. Nevertheless, in view of what has been said in preceding paragraphs there is no doubt that much of the criticisms stated in para. 2 of this note which have been levelled at this system, are now no longer true. The modifications effected in it, though they may not have rendered it popular exactly, have yet at any rate secured the people's acquiescence in it as a system on proper lines. And it certainly cannot be said to be a failure now.

15. And as regards the opinion of officers, I think that these might be accounted for in two ways at least. First, the variable system, as it was before 1893, certainly presented obviously objectionable points, which, drawing patent discontent from the people, led the officers of the time naturally enough to condemn the system as wholly bad. Since then, notwithstanding the reforms of 1893-1894, the unfortunate system has never been able to shake off the evil reputation earned by its unmodified form. Secondly, one can understand that any officer, even with revenue experience elsewhere or rather perhaps for this reason, coming to Ajmer unfamiliar with its revenue system, might well be repelled by the actual dry-unit method of calculating the village assessments under this variable system and by certain other still persisting features.

Moreover, the system has never been popular with the subordinate revenue staff—no fluctuating system would be. This must naturally give the patwaris at any

rate much more work, if only in preparing bulky khataunis or abstracts of their Khasras, twice a year, than a simple fixed assessment. The patwaris' work also under a fixed system requires comparatively less supervision by the Girdawars and other staff,—there is naturally less trouble all round.

16. But whatever be the value of the surmises made in the first portion of the preceding paragraph, I beg with all due deference to differ from the view that the present variable village system has been wholly a failure, or even from the view that because this system has been a failure, any fluctuating system is unsuited to, and unnecessary for, Ajmer-Merwara. On the contrary, it seems to me that the present system has perhaps partially failed only because of certain factors not essentially bound up with the principle, and that a fluctuating system is really best suited to Ajmer-Merwara. And it is because I do thus differ so widely from the past local opinion that I have thought it necessary to put this note on record. On first joining Ajmer-Merwara I was myself inclined to think that the current variable village system has been an experiment which has not justified itself: but somewhat extended observation since and study of the system has convinced me that the view was not just. I must further remark that Munshi Imam-ud-din, the late Revenue Extra Assistant Commissioner, always maintained to me consistently that since 1893-1894, at any rate the villagers had now no real grievances against this system—and, after verification, I can now endorse that statement.

26th July 1908.

W. J. E. LUPTON, C.S.,
SETTLEMENT OFFICER,
Ajmer-Merwara.

Note.—I attach to this Note a translated copy of a very recent petition, from the villagers of Mauza Ramner Dhani, asking for a fluctuating assessment.

5th August 1908.

W. J. E. LUPTON, C.S.,
SETTLEMENT OFFICER,
Ajmer-Merwara.

Translation of a petition, dated 8th July 1908, presented by the villagers of Ramner Dhani for converting their village assessment from the fixed to the variable system.

We, all the Khewatdars of Mauza Ramner Dhani, beg to represent that our village should be a variably assessed one, as there is very little water in the wells and many wells have dried up, the soil is bad and is brackish and will not even grow grass thereon. In the previous Settlement the assessment was high; this may either be reduced or the village be made *katcha* (variable). If it be again made *pukka* (fixed) we the Khewatdars will be utterly ruined. We therefore crave that our poverty may kindly be taken into merciful consideration and the assessment be reduced or the village be made *katcha*. A large amount of arrears of Land Revenue are due by us, we are in narrow circumstances, the produce of our village is very small; the records may kindly be perused.

5th August 1908.

W. J. E. LUPTON, C.S.,
SETTLEMENT OFFICER,
Ajmer-Merwara.

APPENDIX IV.

Draft Assessment Rules (under Section 110 (a) of the Ajmer Land and Revenue Regulation 1877).

1. The Land Revenue of all lands in Ajmer-Merwara which are liable to pay Land Revenue—except in such villages as may be given an assessment made in some other manner—shall be assessed at each harvest in accordance with the following rules.

2. Rates according to classes of crops grown shall be fixed for each village. The crops shall ordinarily be grouped into three classes.

The average circle rates, as fixed for each assessment circle of villages, and the present classes of crops, are shown in Schedule I. attached to these rules. But the actual rates for each individual village are those recorded in its Settlement assessment statement and in its Settlement volume.

3. In these rules :—

- (i) "An assessable area" means an area sown with a crop which produces any out-turn;
- (ii) A crop is said to be fully-matured when its actual out-turn per acre is not less than the "standard average yield" for that crop.

4. A "standard average yield" for each crop shall be fixed for each village at Settlement.

The average "standard average yields" for each assessment circle are given in Schedule II. attached to these rules. But the actual "standard average yields" for each individual village are those recorded in its Settlement assessment statement and in its Settlement volume.

5. The crop-classes, the crop-rates and the standard average yields shall be fixed at Settlement, and no alteration in or addition to them shall be made during the currency of a Settlement except with the sanction of the Chief Commissioner.

6. The assessment shall be determined:—

- (i) First, by applying to the aggregate total of all the assessable areas of all crops belonging to each class of crops the appropriate crop-rate of that class; the sum thus obtained for each crop-class shall be the full possible assessment for that crop-class, and the full possible demand for the whole village shall be the sum total of these several full possible crop-class assessments.
- (ii) Then, this full possible demand shall be the actual demand for the harvest if the aggregate total of all the actual out-turns, as recorded in the Khasra, of all classes of crops for the village as a whole, is not less than the aggregate total of all the standard average out-turns for all the crops, obtained by multiplying the assessable area under each crop by its "standard average yield" and totalling up the figures of the total out-turns thus given.
- (iii) But if the aggregate total of all the actual out-turns of all classes of crops is less than the aggregate total of all the standard average out-turns for all the crops for the village as a whole, then the full possible assessment for each crop-class in which the aggregate total of all the actual out-turns is less than the aggregate total of all the standard average out-turns of all its crops, shall be reduced in the same proportion as the aggregate total of all the actual out-turns of the crop-classes is less than its aggregate total of all the standard average out-turns, and the actual demand for the village as a whole shall then be the sum of the several reduced and unreduced crop-class assessments.
- (iv) If the crop-areas of the village or of a crop class give an out-turn which is less than twenty-five per cent. of the out-turn which the areas would have produced had the crops been fully matured, these areas may, subject to any other rule applicable, not be assessed;
- or,
- [(iv) If the crop areas of the village or of any class-crop give an out-turn only which is not more than the amount of grain required for seed grain, these areas may, subject to any other rule applicable, not be assessed.]

Examples:—(1) A village shows the following figures for the harvest under assessment:—

Crop-class.	Assessable area (Acres).	Aggregate total of the actual out- turns (Maunds).	Aggregate total of the standard average out-turns (Maunds).
Class I	50	400	500
Class II	10	70	60
Class III	100	320	225
Total ...	160	790	785

The crop-class assessment rates are:—

For Class I crops	... ..	Rs. 3 0 0 per acre.
„ „ II „	... ..	1 4 0 „ „
„ „ III „	... ..	0 8 0 „ „

The full possible crop-class assessments are then:—

	Acres.	Rate.	
Class I	50	$\times 3\ 0\ 0$	= Rs. 150 0 0
„ II	10	$\times 1\ 4\ 0$	= „ 12 8 0
„ III	100	$\times 0\ 8\ 0$	= „ 50 0 0
Total ...	160		= „ 212 8 0

Here the aggregate total of all the actual out-turns of all classes of crops for the village as a whole, *viz.*, 790 maunds, is not less than the aggregate total of all the standard average out-turns, *viz.*, 785 maunds. The actual demand will therefore be the sum total of the three crop-class full possible assessments, *viz.*, Rs. 212-8-0.

(2) But suppose that the village showed the following figures for the harvest:—

Crop class.	Assessable area (Acres).	Aggregate total of the actual out-turns (Maunds).	Aggregate total of the standard average out-turns (Maunds).
Class I	50	400	500
Class II	10	70	60
Class III	100	200	225
Total ...	160	670	785

The crop-class assessment rates and the full possible crop-class assessments are as before. But here the aggregate total of all the actual out-turns recorded in the Khasra of all classes of crops in the whole village, *viz.*, 670 maunds, is less than the aggregate total of the standard average out-turns for all the crops, *viz.*, 785 maunds.

The actual demand, therefore, must be something less than the full possible demands.

The crop-classes in which aggregate total of the actual out-turns is less than the aggregate total of the standard average out-turns are Class I. and Class III. The full possible assessment of each of these classes must therefore be reduced in the same proportion as the aggregate total of its actual out-turns is less than the aggregate total of its standard average yields.

For Class I. the proportion of the aggregate of the actual out-turns to the aggregate of the standard average yield is as 400 is to 500: that is, the aggregate of the actual out-turns for this class of crop is four-fifths only of the aggregate of the standard average yields. The actual assessment, therefore, on this crop-class will be four-fifths only of the full possible, that is, four-fifths $\times (50 \times \text{Rs. 3}) = \text{Rs. 120}$.

For Class III., similarly, the actual assessment will be $\frac{290}{325} \times (100 \times \text{annas 8}) = \text{Rs. 44.8}$.

The actual demand for the village for the harvest will then be Rs. 177 only, made up as under:—

Crop-Class.								Actual Assessment.		
								Rs.	A.	P.
Class I	...	...	...	...	...	...	...	120	0	0
„ II	...	...	...	...	...	...	...	12	8	0
„ III	...	...	...	...	...	...	...	44	8	0
Total								177	0	0

7. Distribution of the actual demand for the village over the cultivators' holding shall, ordinarily, be effected by (1) dividing the actual crop-class assessment by the total assessable area of the crop-classes, and (2) applying the incidences thus obtained as the actual assessing rates to the several crop-areas of the Khatai.

Thus, in the second example given in rule 6, the actual assessing rate for the areas of holding under Class I. of crops, to be used in the distribution, will be the incidence of fifty acres upon Rs. 120-0-0, viz., Rs. 2-6-6, and that for areas under Class III. of crop will be Rs. $(\frac{44.8}{100}) = 7-2-0$; and for crop areas of Class II., Rs. 1-4-0.

But if the Khewatdars unanimously agree to any other method of distribution, the announced demand for the harvest shall be distributed according to the method so agreed upon.

But in any case, deductions allowed for new or repaired wells or for "lift" irrigation from tanks shall be given only in respect of the areas entitled to them.

8. Lands growing any fodder-crop for cattle in the hot weather shall not be assessed.

Land growing lucerne grass with well-irrigation shall pay the first-class crop-rate once only in the year; and one bigha of lucerne grass under each well shall pay the rate of Class III. crops only.

9. Crops irrigated by lift from tanks shall be assessed at half the crop-rates otherwise applicable.

10. Crops grown by irrigation from new wells shall be assessed at the village rate of Class III. crops only, for a period of twenty years from the beginning of the first harvest in which the well began to irrigate.

11. If an old well is repaired and expenditure is incurred in its repairing, the crop-areas irrigated from the repaired well shall be assessed at the village rate for Class III. crops only, for such period beginning with the first harvest from which the repaired well began to irrigate, as the Settlement Officer, or thereafter the Collector, may determine—the period in question being fixed with reference to the length of time required for the difference between the rates of Class I. and Class III. of crops to recoup the expenditure incurred.

12. Immediately after the completion of the Girdawari of each harvest, a Khatauni shall be prepared for each village in the form shown in Schedule III. attached to these rules.

13. (a) Columns 1 to 6 of this khatauni shall be filled up by the patwari direct from the Khasra.

(b) The patwari shall not enter any figures in any of the other columns of this khatauni.

14. (a) The Girdawar shall check the entries in columns 1 to 6, from the Khasras.

(b) The Girdawar shall fill up columns 7 to 10 inclusive of this khatauni.

15. Columns 7 to 10 inclusive shall be specially checked by the Circle Inspecting Officer, who shall sign the khatauni in token of his check.

16. The Revenue Extra Assistant Commissioner shall check as many of the entries of the khatauni as he can, and satisfy himself that the entries are correct. He shall then work out the calculations of the assessment in column 11, and submit the khatauni to the Collector. The Revenue Extra Assistant Commissioner shall be responsible for the general correctness of this khatauni.

17. The Collector shall personally satisfy himself as to the correctness of the proposed assessments shown in the khataunis submitted under the preceding rule, and shall correct or amend such as may seem to him to need correction or amendment. He shall be responsible for the final assessments, and shall fix the final sum to be demanded, writing it in his own hand on each khatauni, and shall sign the khatauni. He shall then cause these demands to be announced, and to be collected in the usual way.

18. Other duties of the Patwaris, Girdawars, the Revenue Extra Assistant Commissioner, and the Collector in connection with the assessments are laid down in the separate general rules for the conduct and duties of the revenue staff.

19. An *English Register No. I*, in the form attached to these rules shall be kept up in the Collector's Office, separate pages being assigned to each village. In this Register the assessment of each harvest shall be recorded.

20. In the column of remarks of the above Register, a brief note of any remarkable event of the year affecting the revenue history of the village shall be recorded.

21. The Lambardars' fees shall be at the rate of 5 per cent. on the amount actually collected by them. And the cesses in force from time to time—at present 3/2/- per cent.—shall be levied on the actual demand of each harvest.

22. At Settlement a normal standard demand for each harvest shall be calculated for each village, and the demand shall be entered in the Revenue Register (No. 1 of rule 19) at the head of the pages for each village, and shall be entered in the Annual Revenue Budget Statements for the district, as the amount likely to be collected for the ensuing year. But this is a nominal demand only in each case, and shall not be taken as having any reference to the actual demand of any harvest, which shall be fixed in accordance with the actual areas and out-turns and crop-rates.

W. J. E. LUPTON, C.S.,

20th July 1908.

SETTLEMENT OFFICER,

Ajmer-Merwara.

SCHEDULE I.—Showing the Average Crop-Rates (vide Rule 2).

CROPS.	AVERAGE CROP-RATES PER ASSESSABLE ACRE PER ASSESSMENT CIRCLE.					District.	REMARKS.
	Ajmer.	Gangwana.	Pushkar.	Rajgarh.	Ramsar.		
	2	3	4	5	6			7	8
1	2	3	4	5	6	7	8
	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	
CLASS I.—							
(a) Comprising: Sugar-cane.							
Melons							
Lucerno							
Redpepper							
Tobacco							
Garden produce, fruits and roses							
(b) Comprising: Vegetables, including Onions							
Spices, including Zira, Methi and Dhania, etc.							
Lahsan							
Singhara							
Indigo	3 8 0	2 13 0	3 4 6	2 15 6	2 15 6	3 0 0	
Poppy							
Linseed							
Maize							
Cotton							
Wheat							
Barley							
Gujai							
Gulchani							
Rice							
CLASS II.—							
Gram							
Bejhar							
Hemp... ..							
Mustard							
Carrots (and Jowar, Bajra and Til, when grown with irriga- tion)	1 5 0	1 0 0	1 4 0	1 2 9	1 6 6	1 4 0	
CLASS III.—							
Jowar... ..							
Bajra							
Mung							
Moth							
Mash and Urd							
Chanuala							
Marua	0 9 0	0 7 6	0 7 6	0 7 0	0 7 6	0 8 0	
Gwar							
Kulath							
Kangni							
Til (and other autumn crops grown in bara- ni soil without irrigation)							

SCHEDULE II.—Showing the Average Circle Standard Average Yields of Crops (vide Rule 4).

KHANPUR.						RAJL.					
Crop.	Ajmer.	Gangwana.	Pushkar.	Rajgarh.	Ransar.	Crop.	Ajmer.	Gangwana.	Pushkar.	Rajgarh.	Ransar.
1	2	3	4	5	6	7	8	9	10	11	12
Maize	Wheat ...	...	...	...	...	...
Cotton	Barley ...	...	...	...	...	...
Jowar	Gujar ...	...	...	...	...	...
Bajra	Gulchani ...	...	...	...	...	...
Til	Gram ...	...	...	...	...	...
Mung	Bejhar ...	...	...	...	...	...
Moth	Zira ...	...	...	...	...	...
Kulath	Methi ...	...	...	...	...	...
Urd and Mash	Dhanio ...	...	...	...	...	...
Kangni	Vegetables ...	...	...	...	...	...
Gwar	Garden crops ...	...	...	...	...	...
Chanola	Lucerne grass ...	...	...	...	...	...
Marua	Melons ...	...	...	...	...	...
Carrots	Tobacco ...	...	...	...	...	...
Vegetables	Roses ...	...	...	...	...	...
Lucerne grass	Poppy ...	...	...	...	...	...
Indigo	Linseed ...	...	...	...	...	...
Garden crops	Lahsan ...	...	...	...	...	...
Rice	Singhara ...	...	...	...	...	...
Sugar-cane	Mustard ...	...	...	...	...	...
Tobacco	Carrots ...	...	...	...	...	...
Red pepper	Indigo ...	...	...	...	...	...
						San (Henp ) ...	...	...	...	...	...
						Onions ...	...	...	...	...	...

Kharif 13... ..F.
Rabi

SCHEDULE No. III.

Form of Khutani (Vide Rule.12.) Tahsil..... Mauza..... Circle.....

CROP.	AREAS.			Total Produce on Bad areas in Maunds.	Remarks as to areas to be spe- cially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard average yields per acre.	Aggregate total of standard yields (column 7 multi- plied by column 9)	The village Rates	Class I... " II... " III...
	Total Sown.	Nabad.	Bud, i.e. assessable.			Area.	Produce.				
1	2	3	4	5	6	7	8	9	10	11	
CLASS I.											
Total Class I ...											
CLASS II.											
Total Class II ...											
CLASS III.											
Total Class III ...											
Total for Village ...											

NOTE. - In column 6 shall be entered the areas (with their produces) : (a) irrigated from now wells, (b) irrigated by lift from tanks, (c) exempted Lucerne areas.

APPENDIX V.

NOTE on the existing rules relating to Agricultural Improvement in Ajmer-Merwara, and their proposed exemption from Assessment.

1. In the matter of the assessment of new wells and improvements generally—paragraph 8 of the Government of India's present letter under reference—the rules in force in Ajmer-Merwara are to be found on pages 514 and 730 of Volume H to L of the Ajmer Regulations.

These rules have been left over for consideration by the Settlement Officer with reference to the Government of India's Resolution No. 6-193-2, dated the 24th May 1906, *vide* the Hon'ble the Chief Commissioner's letter No. 1344 C., dated the 8th December 1906, to the address of the Commissioner of Ajmer-Merwara—and I will submit a detailed report in the matter separately.

But meanwhile, in compliance with paragraph 5 of the Hon'ble the Chief Commissioner's letter No. 1344 C., dated the 5th July 1906, and with reference to para. 8 of the Resolution No. 6 of May 1906, above quoted, I submit the following calculation for the tahsil of Ajmer.

2. The average area irrigated per well in tahsil Ajmer is some 9 to 10 bighas, or $3\frac{1}{2}$ to 4 acres. A good well will, of course, irrigate considerably more than this; I have seen some irrigating over 20 bighas: but, on the other hand, many wells irrigate much less than 9 or 10 bighas. And many wells irrigate much more in some years than in others. But as a fair all-round, year-in-year-out, average area, we may take the above figures of four acres as reasonably approximate.

Similarly, the annual average value per acre of irrigated crops, whether for the last sixteen years 1299 *Fasli* to 1314 *Fasli* or over the five years selected for the Net Assets Statement, has been Rs. 22 in some circles and Rs. 25 in others; the district average is Rs. 23. This includes both *chahi* and *talabi* soils. The value per acre of *talabi* soil (*vide* para. 18 of my Note in Appendix I), is a little under Rs. 23. The annual average value per acre of *chahi* soil also is approximately Rs. 25. Lastly, as regards the cost of wells in Ajmer, these cost varying amounts. But ordinarily the cost ranges from Rs. 200 to Rs. 500, and Rs. 300 per well may be taken as a fair average figure of cost. To be on the safe side, however, I take Rs. 350.

3. The annual average value, therefore, per well, *i.e.*, for four acres, is four \times Rs. 25 = Rs. 100. The landlord's share of this at one-third (*vide* para. 128 of the report) is Rs. 33-5-0. If, however, no well had been constructed and these four acres remained "dry," the average annual value per acre (*vide* the figures in Appendix XV to this report) would be Rs. 5-2-0 roughly, if all the four acres matured, that is Rs. 20-0-8 for the four acres. The landlord's share of this one-fourth (*vide* paragraph 128 of this report), would be Rs. 5-2-0, and out of this, it being assumed that the rate per acre of dry soil were annas 12, he would pay Rs. 3, or with cesses at Rs. 3-2-0 per cent., say Rs. 3-1-0.

If now no increased assessment is put on the new well, the landlord's net profit due to the construction of the new well would be Rs. 33-5-0 *minus* Rs. 3-1-0 = Rs. 30-4-0, instead of Rs. 2-1-0 (*i.e.*, Rs. 5-2-0 *minus* Rs. 3-1-0).

That is, his enhanced profit given by the well, over and above what profit he would get on the land as dry, is in a round figure Rs. 28 (*i.e.*, Rs. 30-4-0 *minus* Rs. 2-1-0).

The present rule in force in Ajmer-Merwara now exempts such a well from assessment on the increased value created by it for a period of twenty years. The effect of this rule is that the landlord, after paying each year Rs. 3-1-0, as revenue *plus* cesses on the four acres, gets an enhanced profit of Rs. 28 per annum: that is, in the twenty years, a sum of Rs. 28-0 \times 20 = Rs. 560.

This sum suffices not only to recoup the cost of the well (Rs. 350) but to give a further sum of Rs. 210 for repairs and for interest on the capital—that is, at the rate of some seven per cent. per annum.

At any rate, the figure of Rs. 350 is, I consider, a full one: while that of Rs. 25, as average annual value per *chahi* acre, is, I think, moderate rather than full. These above terms, therefore, with a period of exemption of twenty years, seem at any rate sufficient.

4. Further, when the period of exemption expires, the position of the owner of this well is as follows:—

He has now to pay a revenue on these four acres at the well rate: which will be approximately Rs. 4 per acre: that is Rs. 16, or with cesses Rs. 16-8-0. His share of the produce is in value still Rs. 33-5-0, so that his net profit due to the well is now Rs. 16-13-0. If no well existed, and he paid revenue at dry rates only, his net profit would have been, as already shewn, Rs. 2-1-0. Even now, therefore, his net enhanced profit due to the well, over and above that on dry cultivation, is Rs. 16-13-0 *minus* Rs. 2-1-0 or Rs. 14-12-0, that is, in a round figure, Rs. 15 per annum, giving him still a return of 4 per cent. to 5 per cent. per annum on the original cost of his

well (already recouped) for as long as the well works; and of course, as part of his total net profit on the land under the well, he still receives the Rs. 2-1-0 on it in its dry aspect.

That is, under the present rule a landlord constructing a new well and letting it out on hire at one-third produce only, would in the twenty years' period of exemption, repay himself his capital, acquire a further sum almost equal to that capital, and at the expiration of the exemption period be left with the substantial possession of a free well, on the undepreciated value of which he will still continue to receive an annual sum equal to nearly five per cent. thereof, even after the payment of the revenue at wet, instead of dry rates,—an appreciably substantial net profit in the circumstances—in addition to the Rs. 2-1-0 which he still receives from the land under the well in its dry aspect.

5. In Ajmer-Merwara the well owner will practically always be the cultivator himself, and his profit from the well will certainly not be less than the above. So far as new wells go, therefore, the existing rule in Ajmer-Merwara seems not merely sufficient but liberal. At any rate the term of exemption does not, I think, require to be extended. On the contrary, it is rather a question whether this term is not too liberal and could not be reduced in justice to the revenue without hardship to the well owners.

In the Kohat District of the Punjab under the recent Settlement, the lands under new wells are, I believe, assessed at half the wet rates, and not at the dry rates: while in District Dehra Ismail Khan, they would, I understand, be assessed at three-fourths of the usual wet rate, thus only one-fourth of the usual wet rates being remitted, apart from a remission of a small additional well-advantage-rate.

Calculating on the assumption of taking half the rates on the lands under new wells, we have as before the landlord's share of produce on the four acres as Rs. 33-5-0.

On this, at half rates, he would have to pay Rs. 8 or with cesses Rs. 8-4-0, leaving a net profit of Rs. 25-1. If the land were dry only, the landlord's net profit would be Rs. 2-1-0, as before. The net enhanced profit, therefore, due to the new well is thus Rs. 23. Rs. 23 \times 20 gives Rs. 460 which restores the Rs. 350 capital and gives a sum of Rs. 110, i.e., roughly three per cent. to four per cent. for repairs and interest, while thereafter, when the twenty years has expired, even the assessment at the full wet-rates leaves again Rs. 15 per annum, equal to four per cent. to five per cent. on the undepreciated original value of the well, apart from the Rs. 2-1-0 on the land under the well in its dry aspect.

6. In the United Provinces, though a new well may, under the rules now in force there, receive exemption for 50 or 60 years—yet in strict intention the new well is exempt for the term of settlement only, i.e., thirty years; the allowance is made by making a deduction at the rate of ten per cent. of the estimated capital cost of the well from the assets of the assessment. That is, on Rs. 350, the deduction from the assessable assets would be Rs. 35, giving a reduction in the annual revenue, otherwise assessable, of Rs. 17-8-0, or usually a little more, as a full fifty per cent. of the assets is often not taken. Rs. 17-8-0 per annum for thirty years is Rs. 525 in the total.

The assessing of the Ajmer-Merwara new wells, therefore, at half the wet rates instead of at the "dry" rates, would thus be only slightly less liberal *prima-facie* than the United Provinces system. And if my information stated in the preceding paragraph is correct, there would appear to be a precedent in the Punjab for the assessment of new wells at rates above the mere dry rates.

7. But, as already indicated, such a new well in the United Provinces may, and usually would, receive a much greater exemption than that represented by Rs. 525: the total concession may, in fact, amount to nearly double that sum. Ajmer-Merwara is a poor tract, the seasons of which are subject continually to harassing agricultural vicissitudes.

Even greater liberality in such a tract would thus not be out of place. As a matter of fact, the sum for interest and repairs during the period of recoupment would be meagre with an assessment at half wet rates—and even with an assessment at the lower dry rates only, it is not really excessive—seven per cent. only. I do not recommend, therefore, any alteration in the existing rule as regards new wells, either in the way of taking more than dry rates, or, what is the same thing in effect, reducing the term of the exemption from assessment.

8. In the foregoing we have so far considered the case only of a new well which is constructed where none existed before, and by which "wet" cultivation has been created from what was purely "dry" before.

There is, however, the case where a new well is constructed which irrigates only land which is already irrigated by another well and assessed at "wet" rates.

In such a case, the "increase in value derived" from this new well would no doubt be always difficult, perhaps impossible, to estimate in figures. But in any case one effect would be, doubtless, that the stability of the irrigation is assured, and perhaps preserved, as in many such cases it may be presumed that the new well was not built from caprice merely but was needed to prevent some "wet" area at least from relapsing into

"dry": while even if the latter supposition did not happen to be the case, it would no doubt be true that the additional well, by increasing the irrigation supply, would tend to increase the grain produce, this increased yield having its effect upon the amount of revenue demandable and generally upon the stability of the village in time of drought.

I think, therefore, that the same treatment may be given to such new wells as to the former class. A liberal policy here also is desirable.

In the United Provinces, such new wells will, under the most recent circular, be apparently treated at settlement in the same way as those which convert "dry" to "wet" cultivation.

I propose that the same spirit be followed in Ajmer-Merwara, and that the lands irrigated from such new wells, even though these lands were "wet" before, be assessed in future at dry rates only for a total period of twenty years, or in the case of such wells now existing, for the remaining number of years necessary to make up the total of twenty years since the beginning of its irrigation.

9. There remain three other classes of wells which may be referred to here. One is the class of new wells built to replace old ones which have just gone, or are going, out of use from causes beyond the well-owner's control. Here again the area irrigated has also hitherto been "wet." But if the new wells were not built, the "wet" cultivation would certainly relapse into "dry." The replacing well here, therefore, is strictly a new well of exactly the same category as one creating wet cultivation, and there is no question as to its treatment. Its land should be assessed directly under the existing rules at dry rates for twenty years.

The second is that of new "wells which have been constructed but have failed to work from causes beyond the constructor's control" (*vide* para. 9 of the Government of India's Resolution No. 6-193-2, dated the 24th May 1906).

Here there is no question of any increase of value derived from such wells, and the existing Ajmer-Merwara Rules do not allow any possible revenue abatement. The argument, however, for granting some reduction of assessment in the case of these attempted wells is stated by the Resolution as follows:—

"Such a concession implies that Government to some extent shares the risk of failure of a well, but it will tend to encourage the sinking of wells without any undue loss of revenue," and the Government of India recommends "that other provinces should consider whether a similar concession should not be adopted in the rules promulgated by them."

The question is, however, a difficult one. There would be obvious difficulties in the working, at least, of rules intended to give effect to such a concession. Such a concession would be, of course, intended only for *bona-fide* attempts at making the improvement of a new well. But in many cases in practice it might be very difficult for the Assessing Officer, even with the evidence of the attempted well in front of him, to decide, even if some concession should be granted, to what extent or period it should be granted. Leniency in acknowledging claims to the concessions might easily lead to a number of attempted wells springing up and to a position arising in which, owing to these new, non-working, wells, considerable areas of the *chahi* lands were being assessed at dry, or appreciably reduced, rates even though these *chahi* lands were still being irrigated from previously existing old wells. On the other hand strictness might lead to the undue rejection of claims, to the rules remaining a dead-letter, and to the cultivators being discouraged from sinking even genuine wells. This question, however, had better be left for discussion in connection with the general reference on the subject of the Improvement Rules (*vide* paragraph 1 of this Note). For the present I can only say that, in order to provide for any case of genuine hardship that may arise, in which a *bona-fide* attempt has been unsuccessfully made to make a new well on which a serious amount of labour and money has been expended, I would at most be inclined to frame a permissive rule allowing the Settlement Officer on his own motion, and thereafter the Collector (after the latter has personally enquired and satisfied himself that the case is one deserving of concession, and subject to the specific sanction of the Commissioner or the Chief Commissioner) to make such concession on behalf of the constructor of the well as may seem reasonable in the circumstances, each case to be considered entirely on its own merits.

10. By the third class of wells (para. 9 of this note) I refer to old wells which have been repaired, the repairs involving expenditure. This matter is, of course, not covered by any existing rule in Ajmer-Merwara. But if the repairs prevent the well from falling in, or otherwise going out of use, there is at any rate an assurance of stability of the irrigation, and an additional protection against the effects of drought. And if in addition the repairs increase the supply capacity of the well, there is most probably a substantial increase also in the actual value of the village caused by the extended irrigation.

Well-repairing of this order may legitimately be admitted to the same consideration as actual well-construction. But as regards what concession should be made, the

subject is again one of some difficulty. At any rate a rigid period for an assessment at reduced rates can hardly be laid down. The extent and effects of the repairs, and the amount expended will differ in each case: I would propose, for the present at any rate, until orders are passed on the general reference, that where wells have recently been repaired, and the repairs have involved the cultivator in serious expenditure, other than petty sums which may be considered as ordinarily incidental to his yearly agricultural operations, and the well has been materially benefited thereby, some concession may be made in the rates on the well lands in question to such extent and for such period as may seem sufficient for the case in question. In most cases it will no doubt be sufficient to grant an assessment at dry rates, in place of wet rates on the whole, or portion of the *chahi* lands under the well, for a year or so, or for a few years, until the difference between the dry and wet rates recoups the well-owner for his expenditure.

11. With regard to improvements other than wells (I (b) of para. 109 of the report) the existing rules in Ajmer-Merwara refer, apart from reclamation of waste, to improvements consisting only of distributaries or water-courses (with which may be included masonry "*odhs*," or lifts, over water-courses from tanks or over natural *nalas*), and irrigation improvements other than such distributaries and new wells.

For "distributaries," they prescribe specifically an exemption from assessment on any increased value produced thereby for a term of five years, and, for other irrigation improvements, exemption for a term of ten years.

There is, however, a concluding rule under which the Chief Commissioner may give more liberal terms than the above in suitable cases.

This latter rule no doubt provides a useful means for mitigating possible hardship caused where the nature of the improvement effected is such that a term of 5 or 10 years' exemption would not adequately recoup this initial capital expenditure. But where a definite rule for the ordinary case exists side by side with an exceptional rule for a non-ordinary case, the latter rule is apt to fall out of use. Moreover, at present, at least, I doubt whether the terms of 5 and 10 years would be found to work in actual practice with fairness both to the villagers and the State. Past experience in Ajmer-Merwara furnishes no guide in this matter, as these rules came into existence since the last revision of assessment, and they have not yet been applied to any case.

Probably in the case of most distributaries, a five-year period of exemption would be sufficient to recoup all expenditure incurred thereon. In many cases, on the other hand, where the construction involved merely a few days' earth digging and the area brought under irrigation was large, even five years would be too liberal, involving an unnecessary sacrifice of revenue.

Other irrigation improvements in Ajmer-Merwara resolve themselves into (a) *nâdis*, (b) ordinary field embankments other than *nâdis*, and (c) "stream embankments" (*vide* section 3 (2) of the Irrigation Regulation 1887), which are confined practically wholly to "*rappats*."

Now a *nâdi*, newly constructed, may vary from a very small embankment, irrigating nothing or only one or two bighas in the *Kharif* and giving one field for *gram* or *bejhar* cultivation in the spring harvest, to what is virtually a small tank with a long substantial embankment. The cost of the one may be insignificant: of the other large. For the one the ten years' exemption prescribed may be unnecessarily liberal; for the other inadequately small. Again, the cost of a private "*rappat*" (which is nowadays a very rare form of improvement) might be comparatively quite small, while the "increased value" produced, though indirect mainly, is comparatively large.

12. My present opinion is, therefore, that no rigid periods for such improvements as these distributaries and *nâdis* or "*rappats*" should be fixed by rule. Each individual case should be decided on its merits with reference to the actual expenditure incurred and the increase of value created, a term of exemption from increased assessment being then fixed sufficiently long to recoup this original expenditure and to give, say, eight per cent. interest on the capital during the period of recoupment. This procedure follows rule 4 of the United Provinces Rules, a copy of which is attached as Appendix VI to this Report for ready reference.

13. The repairing of a private "*rappat*" swept away or damaged by a violent flood or other cause beyond the owner's control, I would propose to treat in the same way as a repaired well. But I do not propose that repairs of existing *nâdis* and distributaries be brought within the scope of these rules. The analogy of the concessions contemplated thereunder for the repairing of wells does not really apply to these. A well is an expensive structure that may from time to time require considerable expenditure of labour and money to keep it in proper working order and to ensure its tapping the under-ground water supply. Distributaries and *nâdis*, however—apart from such *nâdis* with a masonry bund (which may wear out, and require, for effective repair, application of much lime, which is costly) as are really small village tanks, of the fourth class in the present classification, and will, I hope, now be taken over for maintenance by the Government—when once made, are capable ordinarily of being kept in order by trifling annual petty repairs which the cultivator does in the ordinary

course of his agricultural operations, and it may be assumed that, when once a term of exemption under the Improvement Rules has been granted for them when originally new, sufficient compensation has been made.

Nor are concessions required ordinarily for new field embankments. If anywhere these are of substantial cost, they can be treated as small *nādis*. But ordinary field-embankments are what the cultivator makes in the ordinary course of his operations, just as elsewhere he would make and maintain field-boundaries, and he would not naturally look for compensation on them.

14. The question of reclamation of waste (1 (c) of para. 109 of the Report) is not an important one in Ajmer-Merwara. There are here no areas of waste outside existing village limits likely to be reclaimed, and within village limits the question can only mean ordinary extensions of cultivation in the village waste lands, with which the ordinary system of assessment now proposed, with its crop-rates and proportionate automatic reductions of the revenue to the extent to which crop out-turn falls below the standard normal yields, will deal sufficiently adequately. But if a case of real reclamation does arise, the existing rule, No. 1 on page 514 or 730 of the Ajmer Regulations, can be applied.

W. J. E. LUPTON, C.S.,

28th July 1908.

SETTLEMENT OFFICER,

Ajmer-Merwara.

APPENDIX VI.

Rules for the temporary exemption from assessment to land revenue of improvements consisting of the reclamation of waste land or of irrigation works.
 *(U.P., Board of Revenue's Circulars 5-1).

1. When land is reclaimed from waste with the aid of a loan granted under Act XIX of 1883, or by or at the cost of the proprietor, and is brought under cultivation, the increase in rental shall not be taken into account in fixing the land revenue to be paid during a period of fifteen years reckoned from the date of the commencement of the reclamation operations.

§ 1. Exemption of land reclaimed from waste

Provided that the provisions of this rule shall not apply to grants of land held on special terms from the Government, which shall be assessed in accordance with the terms of the grants, or to ordinary extensions of cultivation in the waste lands of villages, or, when the land has been reclaimed with the aid of a loan granted under Act XIX of 1883, to any case not within the provisions of section 11, sub-section (i), of the said Act.

In cases in which the exemption is due under this rule, the Settlement Officer shall determine the amount of the allowance made and the date from which the full assessment shall be payable, and shall declare the assessment to the proprietor.

2. When any irrigation work is constructed with the aid of a loan granted under Act XIX of 1883, or by or at the cost of the proprietor, and the condition of the *mahal* is thereby materially improved, either through an enhancement of the rent already payable or through an increase in its stability and additional protection against the effects of drought, an estimate shall be framed of the expenditure incurred in constructing such work, and allowance made for the improvement by deducting ten per cent. of the estimate from the assets before the revenue is assessed at the revision of the assessment of land revenue next following the date when the work was constructed.

§ 2 Exemption of improvements by irrigation.

3. If an improvement other than those referred to in the preceding rules has been effected with the aid of a loan granted under Act XIX of 1883, the increase in value derived from such improvement must be excluded from the assessment (Section 11, Act XIX of 1883).

§§ 3-5. Allowance made for other improvements.

4. If an improvement other than those referred to in the preceding rules is effected by or at the cost of the proprietor otherwise than with the aid of a loan under Act XIX of 1883, and a permanent increase in the rental of such land or greater certainty in its realization is considered by a Settlement Officer to be wholly or partly due to such improvement, the Settlement Officer may, subject to the approval of the Board of Revenue, make such deduction from the assessable rental assets of the land benefited by such improvement and reduce the assessment upon it accordingly for such terms as may, in consideration of the expenditure incurred and the rental benefit derived from the improvement, appear to him reasonable.

The deduction so made shall not, on the one hand, exceed a fair return on the capital expended, or, on the other hand, the difference between the stable rental value of the land as improved and the average rental realized before the improvement was effected.

If the reduction in the assessment will cease to have effect before the expiry of the term of the settlement which is being made, the Settlement Officer shall declare to the proprietor the amount of the reduction and the amount of the full assessment and the date from which the latter will become payable.

5. When during the currency of a settlement a new permanent well is constructed with the aid of a loan granted under Act XIX of 1883, or by or at the cost of the proprietors, and such new well replaces an old one in respect of which allowance was not made at settlement under rule 2, an estimate shall be made of the expenditure incurred in constructing the new well, and allowance for the improvement shall be made by a reduction in the revenue by an amount equal to five per cent. on the estimated expenditure.

Such reduction shall take effect from the commencement of the revenue year following that in which the new well was completed, and shall continue for the remainder of the term of settlement.

Each co-sharer or group of co-sharers, paying revenue jointly, in whose favour such reduction is granted, shall be given an order in writing showing the revenue previously demanded from such co-sharer or group, the revenue after reduction, and the work of the improvement on account of which the reduction has been granted.

TRUE COPY.

W. J. E. LUPTON, C.S.,

SETTLEMENT OFFICER,

Ajmer-Merwara, Ajmer.

3rd August 1908.

(APPENDI VII).

Statement showing the Rainfall of the Ajmer District.

Years.	Ajmer Observa- tory.	Harmara.	Pisangan.	Masuda.	Gaela.	Kekri.	Bhinnai.	Sawar.	Total.	District Average.
	Ins. Cts.	Ins. Cts.	Ins. Cts.	Ins. Cts.	Ins. Cts.	Ins. Cts.	Ins. Cts.	Ins. Cts.	Ins. Cts.	Ins. Cts.
1880 ...	18 54	9 50	15 10	18 30	9 50	14 60	12 20	18 20	115 94	...
1881 ...	21 30	15 50	14 50	15 10	15 80	20 15	17 15	15 25	134 75	...
1882	27 24	23 70	25 80	31 60	27 50	25 35	20 80	28 40	210 39	...
1883 ...	17 40	12 ...	14 20	14 0	9 85	14 85	18 30	16 67	117 27	...
1884 ...	27 04	35 05	18 10	19 05	30 30	22 65	20 45	18 10	190 74	...
1885 ...	24 77	21 30	15 20	22 18	11 75	12 05	16 25	32 50	156 0	...
1886 ...	15 34	18 70	11 83	18 23	17 50	11 75	19 20	29 80	142 35	...
1887 ...	21 93	20 46	18 45	16 40	25 02	13 40	26 51	26 50	168 97	22.0
1888 ...	24 42	16 03	12 41	21 05	28 97	14 0	17 04	26 25	160 17	18.7
1889 ...	25 17	19 78	25 21	23 57	20 14	12 50	29 20	23 20	178 77	21.4
1890 ...	14 55	9 81	12 83	14 0	8 79	10 93	9 50	7 95	88 36	12.5
1891 ...	8 33	5 07	6 50	8 42	7 77	15 24	14 26	9 27	74 86	8.50
1892 ...	20 80	36 74	24 82	25 16	41 11	44 56	55 88	38 27	287 34	37.28
1892-93 ...	22 18	37 75	25 16	27 63	42 54	46 90	57 3	39 8	298 27	
1893-94 ...	31 22	31 32	24 71	22 68	22 10	19 57	21 97	26 57	200 14	25.20
1894-95 ...	26 61	24 55	23 47	18 38	25 75	20 39	31 0	32 52	202 67	25.33
1895-96 ...	23 53	11 78	18 58	13 2	20 89	17 97	14 43	16 24	136 44	17.05
1896-97 ...	26 64	17 53	19 34	21 13	17 28	26 38	21 69	34 19	184 18	23.02
1897-98 ...	23 26	27 20	20 43	22 8	20 33	21 61	13 90	18 66	167 47	20.93
1898-99 ...	12 69	11 6	14 18	13 56	11 95	17 0	13 26	18 73	112 43	14.05
1899-1900 ..	10 0	7 23	4 30	9 94	9 61	7 45	9 49	8 89	66 91	8.36
1900-01 ...	26 94	27 13	30 31	25 74	27 74	26 94	27 18	35 43	225 41	28.18
1901-02 ...	11 90	10 73	15 68	8 73	10 78	16 53	12 0	16 92	103 27	12.91
1902-03 ...	17 38	16 13	18 49	12 ...	13 63	13 12	13 83	20 01	124 59	15.57
1903-04 ...	19 17	17 16	20 13	15 98	24 59	28 29	25 25	28 69	179 26	22.41
1904-05 ...	16 19	14 13	14 19	11 75	20 94	18 24	18 62	20 81	134 87	16.86
1905-06 ...	7 47	2 93	8 60	4 63	6 64	7 82	8 19	8 9	54 37	6.79
1906-07 ...	20 29	13 10	13 10	23 06	29 53	29 28	28 13	29 47	186 66	23.33

APPENDIX VIII.

Milan Khasra for the 15 years 1300 Fasli to 1314 Fasli (all included)—Tahsil Aimer.

NAME OF CIRCLE.	Total Area.	Not assessable.	ASSESSABLE (KHAISA ONLY).										Total cultivated.	Total Assessable.
			Old fallow.	New fallow.	Total.	Irrigated.			Unirrigated.					
						Chahi.	Tabahi.	Total.	Abi.	Barani.	Total.			
1	2	3	1	5	6	7	8	9	10	11	12	13	14	
Ajmer ...	8,43,317	3,85,558	76,552	1,01,398	1,80,950	62,533	2,145	64,978	17,031	1,91,827	2,11,861	2,76,839	4,57,789	
Average ...	56,223	25,704	5,103	6,960	12,063	4,169	163	4,332	1,136	12,988	14,124	18,456	30,519	
Gangwana ...	10,66,333	1,12,808	1,02,093	2,11,412	3,16,535	12,858	7,677	50,535	13,377	2,73,078	2,86,455	3,36,990	6,53,525	
Average ...	71,089	27,521	6,806	14,296	21,102	2,867	512	3,369	892	18,205	19,097	22,466	43,563	
Ramsar ...	17,21,365	5,18,878	4,37,015	3,22,023	7,59,038	51,679	61,559	1,19,238	23,078	3,01,133	3,24,211	4,43,449	12,02,487	
Average ...	1,14,758	34,592	29,135	21,468	50,603	3,645	4,304	7,949	1,538	20,076	21,614	29,563	80,166	
Rajgarh ...	9,27,003	3,25,656	1,16,732	1,63,221	2,79,953	59,611	14,665	74,276	18,440	2,28,678	2,47,118	3,21,391	6,01,347	
Average ...	61,800	21,710	7,782	10,882	18,664	3,974	978	4,952	1,229	15,245	16,474	21,426	40,090	
Pushkar ...	2,99,670	1,07,028	66,636	47,142	1,13,778	13,731	915	14,646	12,025	52,193	64,218	78,861	1,92,612	
Average ...	19,978	7,135	4,442	3,143	7,585	915	61	976	802	3,480	4,282	5,258	12,843	
Total District ...	48,57,718	17,49,928	7,99,028	8,51,226	16,50,254	2,33,412	90,261	3,23,673	83,954	10,49,909	11,33,863	14,57,536	31,07,790	
Average ...	3,23,848	1,16,662	53,268	56,749	1,10,017	15,560	6,018	21,578	5,597	69,994	75,591	97,169	2,07,186	

APPENDIX IX.

Milan Khasra for the 13 years 1300 to 1306 and 1308 to 1312 and 1314 Fasli, Tahsil Ajmer (1307 and 1313 Fasli omitted).

NAME OF CIRCLE.	Total Area.	Not assessable.	ASSESSABLE (KHALSA ONLY).										Total cultivated.	Total assessable.
			Old fallow.	Now fallow.	Total.	IRRIGATED.			UNIRRIGATED.					
						Chahi.	Talabi.	Total.	Abi.	Barani.	Total.			
Ajmer ...	7,30,853	3,40,364	64,757	86,917	1,51,674	56,049	2,386	58,430	14,799	1,65,586	1,80,385	2,38,815	3,90,489	
Average ...	56,219	26,182	4,981	6,685	11,666	4,311	184	4,495	1,138	12,738	13,876	18,371	30,037	
Gangwana ...	9,18,184	3,50,983	83,575	1,75,327	2,58,902	39,135	7,488	46,623	12,611	2,49,065	2,61,676	3,08,299	5,67,201	
Average ...	70,630	26,999	6,429	13,487	19,916	3,010	576	3,586	970	19,159	20,129	23,715	43,631	
Ramsar ...	1,439,713	4,27,423	3,66,123	2,50,463	6,16,586	48,819	59,960	1,08,779	21,712	2,65,213	2,86,925	3,95,704	10,12,290	
Average ...	1,10,747	32,878	28,163	19,267	47,430	3,756	4,612	8,368	1,670	20,401	22,071	30,439	77,869	
Rajgarh ...	8,03,265	2,83,591	98,969	1,40,863	2,39,832	52,448	12,691	64,839	16,831	1,98,172	2,15,003	2,79,842	5,19,674	
Average ...	61,790	21,814	7,613	10,836	18,449	4,035	953	4,988	1,295	15,244	16,539	21,527	39,976	
Pushkar ...	2,59,714	92,571	58,708	39,043	97,751	11,760	749	12,509	10,742	46,141	56,883	69,392	1,67,143	
Average ...	19,978	7,121	4,516	3,003	7,519	905	57	962	827	3,549	4,376	5,338	12,857	
Total District ...	41,51,729	14,94,932	6,72,132	6,92,613	13,64,745	2,08,211	82,969	2,91,180	76,695	9,24,177	10,00,872	12,92,052	26,56,797	
Average 13 years	3,19,364	1,14,994	51,702	53,278	1,04,480	15,017	6,382	22,399	5,900	71,091	76,991	99,390	2,04,370	
Average of full 15 years.	3,23,848	1,16,662	53,268	56,749	1,10,017	15,560	6,018	21,578	5,597	69,994	75,591	97,169	2,07,186	
Average of five years (1304, 5, 8, 11, and 14 Fasli)	*3,54,306	1,27,435	57,781	57,761	1,15,545	17,084	8,218	25,302	6,710	79,314	86,024	1,11,326	2,26,871	
Mr. LaTouche's areas (1874).	*3,59,424	1,42,783	89,703	18,018	1,07,721	18,553	8,365	26,918	7,746	74,256	82,002	1,08,920	2,16,641	
Khasras 1885-1886 Assessed by Mr. Whiteway.	*3,58,796	1,36,118	69,699	36,539	1,06,238	21,822	8,328	30,150	7,303	78,987	86,290	1,16,440	2,22,678	
...	...	...	...	...	...	18,263	9,153	27,416	7,558	85,786	93,344	1,20,760	...

*NOTE.—Includes Munsif and Bhum lands.

APPENDIX X.

Milau Khasra for five Selected years—1304, 1305, 1308, 1311 and 1314 F.

ASSESSABLE (KHALSA ONLY).													
NAME OF CIRCU.	Total Area.	Unculturable.	CULTIVATED.			CULTIVATED.							Total Assessable.
			Khadim.	Jadid.	Total.	Irrigated.			Unirrigated.			Total Cultivated.	
						Chahi.	Talabi.	Total.	Abi.	Barani.	Total.		
Ajmer ...	Total ...	2,81,234	30,688	31,875	62,563	22,927	1,156	24,083	6,070	75,321	82,391	1,06,474	1,69,037
	Average...	56,247	6,138	6,375	12,513	4,586	231	4,817	1,214	15,264	16,478	21,295	33,808
Rajgarh ...	Total ...	3,12,185	38,099	51,948	90,047	20,386	6,042	26,428	7,136	77,577	84,713	1,11,141	2,01,188
	Average...	62,437	7,620	10,389	18,009	4,077	1,208	5,285	1,428	15,515	16,943	22,228	40,237
Gangwana ...	Total ...	3,73,718	36,779	60,682	97,461	15,347	2,917	19,264	6,046	97,269	1,03,315	1,22,579	2,20,040
	Average...	74,744	7,355	12,137	19,492	3,069	784	3,853	1,209	19,454	20,663	24,516	44,008
Kamsar ...	Total ...	7,04,500	1,63,251	1,27,830	2,91,081	22,083	29,584	51,617	10,448	1,26,183	1,36,631	1,88,248	4,79,329
	Average...	1,40,900	32,650	25,566	58,216	4,407	5,917	10,324	2,089	25,237	27,326	37,650	95,866
Pushkar ...	Total ...	99,890	20,088	16,485	36,573	4,726	392	5,118	3,850	19,218	23,068	28,186	64,759
	Average...	19,978	4,018	3,297	7,315	945	78	1,023	770	3,844	4,614	5,637	12,952
Total Distt.	Total ...	17,71,527	2,88,905	2,88,820	5,77,725	85,419	41,091	1,26,510	33,550	3,96,568	4,30,118	5,56,628	11,34,353
	Average..	3,54,306	57,781	57,764	1,15,545	17,084	8,218	25,302	6,710	79,314	86,024	1,11,326	2,26,871

APPENDIX XI.

Statement showing Well-irrigated Areas (Chali) in District Ajmer, extracted from the *Khasras*.

Year (Fasli).	AJMER.				GANOWANA.				PUSHKAR.				RAJGARH.				RAMGARH.				TOTAL DISTRICT.				Dofasli.	Cultivated area.
	Total area sown.	Matured area.	Failed area.	Percentage of failed area to sown area.	Total area sown.	Matured area.	Failed area.	Percentage of failed area to sown area.	Total area sown.	Matured area.	Failed area.	Percentage of failed area to sown area.	Total area sown.	Matured area.	Failed area.	Percentage of failed area to sown area.	Total area sown.	Matured area.	Failed area.	Percentage of failed area to sown area.	Total area sown.	Matured area.	Failed area.	Percentage of failed area to sown area.		
1300	4,133	3,876	257	6.22	2,899	2,723	176	6.07	984	899	85	3.75	2,732	2,708	24	.88	3,376	3,167	209	6.19	14,074	13,373	701	4.98	..	..
1301	4,862	4,807	55	1.13	4,795	4,761	34	.71	1,117	1,081	36	3.22	5,916	5,888	28	.17	5,161	5,118	43	.83	21,831	21,633	198	.90	..	..
1302	5,414	5,238	186	3.44	4,526	4,506	20	.45	1,168	1,111	57	2.06	6,015	6,538	87	1.31	5,813	5,639	174	2.99	23,566	23,073	493	2.08	..	..
1303	5,896	5,808	88	1.49	4,793	4,766	27	.56	1,173	1,149	24	2.05	5,916	5,818	128	2.15	6,322	6,232	70	1.11	21,130	20,791	339	1.59	..	..
1304	5,899	5,824	75	1.27	5,162	5,085	77	1.49	1,219	1,241	8	.64	6,266	6,165	101	1.61	7,623	7,564	59	.77	26,199	25,879	320	1.22	..	..
1305	5,754	5,668	86	1.49	5,108	5,093	15	.29	1,236	1,212	24	1.91	6,321	6,409	112	1.71	6,845	6,612	203	2.96	25,164	25,024	140	1.73	..	..
1306	5,354	5,307	47	.88	4,421	4,357	67	1.51	1,225	1,216	9	.73	5,713	5,682	161	2.80	7,079	6,713	366	5.17	23,825	23,115	630	2.73	..	..
1307	4,271	3,994	277	6.49	2,182	2,029	153	7.01	985	937	48	4.87	4,062	3,730	332	8.17	4,331	4,015	286	6.60	15,831	14,735	1,096	6.92	..	..
1308	5,033	5,007	26	.52	2,802	2,791	8	.28	1,017	1,011	6	.59	3,832	3,801	31	.79	4,303	4,296	7	.16	17,017	16,969	78	.46	..	..
1309	5,445	5,247	198	3.63	3,423	3,043	380	11.10	1,075	1,039	36	1.19	4,990	4,533	37	.71	5,359	5,195	164	3.06	20,292	19,497	795	3.92	..	..
1310	4,185	4,135	50	1.19	3,173	3,158	15	.47	1,109	1,097	12	1.08	4,669	4,615	54	1.15	4,713	4,651	62	.17	17,819	17,696	153	.86	..	..
1311	4,117	4,099	18	.43	3,590	3,560	30	.83	897	896	1	.11	4,965	4,897	68	1.37	3,995	3,975	20	.50	17,564	17,427	137	.78	..	..
1312	3,637	2,470	107	4.59	3,631	3,149	189	5.20	1,183	1,121	59	4.98	4,285	4,065	220	5.13	4,320	4,169	121	2.80	17,033	16,307	726	4.43	..	..
1313	2,920	2,769	151	5.17	2,002	1,805	197	9.81	1,361	1,287	74	5.41	2,521	2,381	130	5.16	2,509	2,302	198	7.92	11,304	10,551	753	6.63	..	..
1314	4,222	4,214	8	.19	3,071	3,056	15	.49	1,338	1,321	14	1.01	4,497	4,401	6	.13	3,190	3,166	24	.68	16,328	16,461	67	.41	..	..
Total. ...	71,142	69,453	1,689	2.37	55,688	54,185	1,403	2.52	17,067	16,677	390	2.28	73,560	72,011	1,549	2.07	75,290	73,261	1,966	2.61	2,92,587	2,87,620	6,967	2.38	..	..
Average.	4,713	4,630	113	2.38	3,706	3,612	94	2.51	1,138	1,112	26	2.28	4,901	4,803	101	2.06	5,015	4,834	131	2.61	19,596	19,011	465	2.38	3,916	15,509

N.B. Note.—The figures in this Statement are approximate only owing to several of the village *Khasras* being missing or so damaged as to be now undecipherable.

APPENDIX XII.
Statement showing Produce under each Class of Soil, District Ajmer, in 55 Villages.

Year (Fash).	CHABL.				TALAB.				ABH.				TOTAL.			
	Total sown area.	Matured area.	Produce.	Average Pro- duce on— Sown area.	Matured area.	Produce.	Average Pro- duce on— Sown area.	Matured area.	Total sown area.	Matured area.	Produce.	Average Pro- duce on— Sown area.	Matured area.	Total sown area.	Produce.	Average Pro- duce on— Sown area.
1300	3,751	3,475	40,854	10.98	11.76	1,179	11.199	9.58	9.50	1,450	10,572	7.55	7.84	6,365	63,005	9.90
1301	3,831	3,622	53,571	9.66	9.40	1,270	11,703	9.64	9.29	1,631	10,309	6.32	6.13	8,786	75,085	8.55
1302	3,673	3,498	60,750	10.72	10.85	1,815	16,140	6.66	5.92	1,629	11,229	0.91	6.95	10,945	88,499	8.81
1303	6,093	6,621	59,890	9.81	9.93	2,222	15,477	6.85	6.92	1,675	8,310	1.66	5.12	10,012	83,187	9.34
1304	6,178	6,187	61,220	10.07	10.11	2,116	19,517	9.57	9.11	1,286	7,156	5.80	6.05	9,620	80,223	9.27
1305	6,209	6,121	67,565	10.83	10.69	2,616	21,801	9.11	9.14	1,483	7,530	5.12	5.10	10,317	98,763	9.57
1306	5,336	5,301	49,138	9.28	9.33	1,825	15,782	9.16	9.19	1,365	5,619	1.12	4.39	8,534	71,839	8.42
1307	3,258	3,127	29,262	8.96	9.31	1,629	9,418	8.12	9.23	712	3,896	5.25	6.12	5,119	42,516	8.81
1308	3,162	3,433	49,311	11.21	14.36	1,807	19,725	10.90	10.62	1,551	9,381	6.05	6.13	6,823	78,421	11.49
1309	4,146	3,572	37,669	9.09	9.73	1,438	13,677	8.27	9.09	1,250	6,030	1.82	5.05	6,977	50,776	8.14
1310	3,725	3,717	41,686	11.19	11.22	1,619	13,399	8.13	8.26	1,615	9,850	6.12	6.61	6,989	61,967	9.30
1311	3,933	3,918	43,512	11.09	11.11	2,061	17,069	8.24	8.39	1,611	7,912	4.91	5.46	7,068	68,433	8.99
1312	4,627	3,870	31,736	7.88	8.20	1,970	8,400	6.51	6.57	1,081	3,071	2.81	3.49	6,399	43,207	6.75
1313	2,743	2,574	20,918	11.27	12.01	262	517	1.87	2.56	752	2,801	3.73	6.37	3,771	31,239	9.08
1314	3,131	3,424	18,650	14.18	14.21	2,710	39,537	14.39	14.13	1,835	13,252	7.22	7.15	8,014	1,01,439	12.66
Total ...	67,769	66,213	7,05,924	10.11	10.66	23,220	2,32,777	8.87	9.35	21,628	1,19,203	5.62	6.08	1,15,379	1,10,863	9.19
Average ...	4,518	4,414	47,062	10.41	10.66	1,681	15,718	8.87	9.35	1,402	7,880	5.62	6.08	7,602	70,660	9.56

APPENDIX XIII.

Crop Price List for Ajmer District, in Rupees per Maund (Retail).

Crops.	1887-88	1888-89	1889-90	1890-91	1891-92	1892-93	1893-94	1894-95	1895-96	1896-97	1897-98	1898-99	1899-1900	1900-01	1901-02	1902-03	1903-04	1904-05	1905-06	1906-07	Average of the prices applied to Produce Statement.	Crops.	Average price applied to the Produce Statement.
Maize	2.06	2.77	2.08	1.90	2.60	2.03	1.34	1.37	2.19	3.57	2.57	1.83	4.08	2.13	2.56	1.91	1.53	1.65	2.92	2.29	2.14	Kulath	2.00
Jowar	1.99	2.62	2.15	1.01	2.49	1.81	1.30	1.51	2.10	3.68	2.68	1.81	4.08	2.19	2.61	1.91	1.44	1.69	2.71	2.18	1.97	Gwar	2.00
Bajra	2.52	2.89	2.46	2.32	2.87	2.17	1.68	1.98	2.75	4.18	2.92	2.24	4.63	2.33	2.72	2.15	2.13	1.47	3.39	2.41	2.33	Indigo	10.00
Mung	3.00	3.89	3.76	3.52	3.38	2.55	1.79	2.16	3.59	5.42	4.64	2.96	5.12	4.18	4.10	3.20	2.52	2.40	4.10	3.33	3.17	Sarson	4.50
Red pepper	10.00	10.00	10.00	10.00	8.32	10.00	11.43	9.28	7.04	9.01	12.79	9.55	10.31	11.63	11.24	8.66	8.10	12.54	12.54	9.13	10.17	Dhanla	6.00
Moth	2.50	2.50	2.22	2.62	3.02	2.34	1.41	1.02	2.45	4.71	3.40	2.44	4.96	3.50	3.12	2.41	1.89	1.82	3.42	2.71	2.46	Zira...	10.00
Chanola	2.0	2.0	2.0	2.0	3.01	2.20	1.71	2.11	3.03	4.57	3.83	2.61	5.33	3.48	3.08	2.45	2.21	2.07	3.28	2.70	2.61	Mothi	3.16
Urd	3.58	1.00	3.85	3.52	3.22	2.32	2.45	3.01	3.81	4.88	4.30	3.32	3.83	3.48	3.70	2.65	2.58	2.71	3.40	3.15	3.77	Marua	2.00
Tobacco	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	Gajar	.75
Til	4.31	3.00	5.00	5.28	5.56	5.31	5.50	5.47	5.99	6.40	5.16	4.13	6.16	6.80	7.04	5.38	4.22	4.35	6.27	6.60	5.45	Onions	.75
Wheat	3.53	3.31	2.84	2.96	3.27	2.98	2.48	2.62	3.25	4.35	3.22	2.83	4.18	3.29	3.23	3.09	2.76	3.19	3.62	4.85	3.19	Lahsan	2.00
Barley	2.07	2.43	2.04	2.18	2.30	1.58	1.45	1.60	2.35	3.18	2.04	2.09	3.51	2.15	2.53	2.38	1.83	2.25	3.11	3.48	2.31	Miscellaneous (+San and Singhara)	3.00
Gram	1.92	2.22	2.10	2.34	2.21	1.60	1.45	1.54	2.37	4.20	2.34	2.41	3.81	2.18	2.60	2.43	2.01	2.18	3.06	3.95	2.35	Garden produce	80.00
Bejhar	2.07	2.43	2.04	2.18	2.30	1.56	1.37	1.55	2.25	3.51	2.15	2.11	3.42	2.16	2.47	2.26	1.81	2.08	2.96	3.56	2.50	Lucerne	100.00
Gujar	2.30	2.90	2.30	2.50	2.60	1.97	1.73	1.87	2.62	3.64	2.37	2.13	3.83	2.52	2.80	2.63	2.03	2.58	3.36	3.81	2.56	(a) Pushkar Circle	100.00
Linseed	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	3.64	...	(b) Other Circles	50.00
Kangni	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	3.02	...	(a) Ajmer, Pushkar	75.00
Rice	5.00	5.00	5.29	5.39	5.22	4.35	4.82	4.90	4.78	4.31	5.69	5.06	4.56	5.00	5.00	4.97	5.00	4.94	4.90	5.00	5.14	(b) Other Circles	10.00
Poppy seed and Poppy heads	4.0	4.0	4.0	4.0	4.0	4.50	5.0	5.0	0.0	6.0	6.66	6.66	6.60	6.66	6.60	6.66	6.66	6.66	6.25	6.21	5.97	Vegetables	...
Cotton (Kapas)	5.50	5.00	4.62	5.0	5.0	5.0	5.0	5.0	5.0	5.50	6.0	6.0	6.0	6.0	6.50	6.50	7.02	6.48	6.50	5.75	5.65	(a) Ajmer Circle	50.00
Gulchani	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	(b) Other Circles	30.00

APPENDIX XIV.

Comparative Valuation's Statement of 1874 and of Average of 18 years ending 1314 *fusli* (1906-1907).

Crops.	Area under Crops in 1873-74.		Average Area 1889-90 to 1906-07.		Produce assumed in 1873-74.	Average Annual Produce 1889-90 to 1906-07.	Average Price per Acre.		Annual Value of Produce.		Average Price for—		Col. 11 + 10 % value of Blusa and Straw.	Valuation at 15 years' Mr. La Fontaine's Prices of 1874.	Col. 15 + 10 % for Blusa and Straw.
	Area.	Percentage.	Percentage.	Area.			1873-74.	1889-90 to 1906-07.	1873-74.	1889-90 to 1906-07.					
1	2	3	1	5	6	7	8	9	10	11	12	13	14	15	16
Kharif.															
Rice	69	06	07	66	276	327	400	405	1,262	1,630	1,357	514	1,348	1,197-66	1,647-66
Cotton	3,507	526	11-01	10,041	22,001	59,999	304	507	1,14,519	3,38,789	500	505	3,38,789	2,99,995-00	2,99,995-00
Maize	7,072	613	11-27	10,277	63,113	79,022	892	760	1,14,750	1,68,912	1,82	214	1,82,803	1,38,202-04	1,38,202-04
Jowar	26,161	23-32	21-50	19,608	63,403	46,215	2-50	2-36	1,11,323	91,137	1-70	1-97	1,00,251	79,027-65	86,040-65
Bajra	12,168	10-89	11-11	10,406	30,420	29,706	2-50	2-85	61,610	69,116	2-63	2-33	76,027	60,403-18	66,333-18
Mung	2,218	1-93	0-89	813	6,100	1,539	2-75	1-89	14,566	4,880	2-39	3-17	4,880	3,678-21	3,678-21
North	10,696	9-38	3-25	2,963	29,414	4,942	2-75	1-67	58,828	12,172	2-00	2-16	12,172	9,884-00	9,884-00
Mash	155	1-14	0-02	92	233	47	1-60	2-11	581	177	2-30	3-77	177	117-50	117-50
Kaungai	31	03	...	...	99	...	3-00	...	299	...	3-02	...	...	...	...
Til	13,736	12-29	7-13	6,302	17,170	9,082	1-25	1-40	62,437	49,461	3-64	5-45	49,461	33,058-48	33,058-48
Guar	623	06	...	...	2,492	1	4-00	1-00	2,492	200	1-00	2-00	2	1-00	1-00
Indigo	4	00	...	...	1	1	1-00	1-00	21	3	24-00	3-00	3	80-00	80-00
Chaula	401	06	...	199	1,616	317	1-00	1-60	3,232	826	2-00	2-60	826	631-00	631-00
Mundun	14	01	...	...	15	1	1-07	1-00	30	1	2-00	1-00	1	2-00	2-00
Kulath	1,385	1-21	0-24	381	2,770	611	2-00	1-59	4,262	1,222	1-54	2-00	1,222	940-91	940-91
Pepper	39	04	08	76	117	1,003	3-00	15-33	1,600	12,231	13-33	10-17	12,231	16,035-99	16,035-99
Total Kharif	80,584	72-13	67-27	61,360	2,42,143	2,33,013	3-05	3-79	5,51,775	7,50,612	2-28	3-22	7,83,696	6,49,075-65	6,77,540-65
Rabi.															
Vegetables	351	32	03	532	...	12,283	...	23-09	10,620	21,250	30 per ac.	1-73	21,280	15,960-00	15,960-00
Sugar-cane and Satha	292	26	06	112	2,336	1,029	8-00	9-19	11,680	7,809	5-00	7-59	7,809	5,145-00	5,145-00
Poppy and Tijara	69	06	01	8	259	53	3-75	6-62	1,035	317	4-00	5-98	317	212-00	212-00
Lucerne	9	01	02	17	...	391	10-00	3-67	900	1,700	100 per ac.	4-35	1,700	1,700-00	1,700-00
Tobacco	57	05	...	3	570	11	18-00	5-00	2,280	107	4-00	9-73	107	44-00	44-00
Onions	20	02	...	1	360	5	17-21	5-00	180	4	5-00	8-00	4	2-50	2-50
Roses and Garden Produce	11	01	...	91	280	1,566	20-00	7-30	1,120	7,272	4-00	4-04	7,272	7,280-00	7,280-00
Wheat	2,604	2-33	3-44	3,136	18,965	22,901	7-21	7-30	47,411	72,992	2-30	3-19	80,291	57,260-00	62,986-00
Barley	16,084	11-94	15-21	13,873	1,61,968	1,42,933	9-71	10-31	2,69,917	3,30,881	1-67	2-31	3,63,969	2,37,268-78	2,60,995-78
Beihar and Gulehau	1,496	1-31	2-69	2,453	8,976	13,397	6-00	5-16	14,900	25,321	1-66	2-20	22,473	24,086-27	24,086-27
Guini	502	04	2-23	2,031	3,640	20,815	7-25	10-25	6,952	53,176	1-90	2-56	53,176	39,756-65	41,731-65
Zira	...	...	...	85	...	309	...	...	...	3,037	...	9-99	3,037	3,090-00	3,090-00
Dhania	...	...	...	5	...	36	...	7-20	...	219	...	6-06	219	216-00	216-00
Methi	...	...	...	29	...	47	...	1-62	...	166	...	3-53	166	161-50	161-50
Sarson	7	01	03	23	...	43	1-29	1-87	...	196	3-22	4-63	196	143-19	143-19
Linsced	30	01	...	...	38	...	1-27	...	136	...	3-38	...	...	...	...
Melons	287	06	...	...	...	...	...	...	7,175	...	25 per ac.	4-68	...	1,025-00	1,025-00
Gram	8,150	7-29	6-97	6,319	20,375	22,593	2-60	3-31	35,135	53,164	1-74	2-35	53,164	39,311-82	39,311-82
Total Rabi	30,575	27-38	31-54	28,752	2,17,776	2,38,456	7-12	8-29	4,09,840	5,82,083	1-88	2-44	6,30,740	4,81,294-71	4,66,993-71
Unown	553	...	...	...	...	7,139	...	6-61	...	21,417	...	3-00	21,417	21,417-00	21,417-00
Miscellaneous	...	...	1-19	1,080	...	4,78,608	4-12	5-25	9,61,615	13,54,112	2-09	2-83	14,35,853	11,01,787-36	11,65,951-36
Grand Total	1,11,712	100-00	100-00	91,192	4,59,919	4,78,608	4-12	4-38	9,61,615	13,54,112	209	2-83	...	...	...
Sown area	1,11,712	100-00	100-00	1,09,475	4,59,919	4,78,608	4-12	4-38	9,61,615	13,54,112	209	2-83	...	...	...
Total	...	...	...	...	...	...	...	...	...	14,35,853	...	...	...	...	...

APPENDIX XV. (C.)
Statement showing Average (Five years) Area and Assets, &c., of Circle Gangavati, District Ajmer.

CROP.	AVERAGE AREA.		Average total produce.	AVERAGE OUT-TURN PER.		Average value of total area.	Deduct 10 per cent. for materials.	Balance	Deduct 50 per cent. for prices.	AVERAGE VALUE OF PER-ACRE.		Rate of owner's share.	Amount of owner's share (Net assets).	Half Net assets.	INCIDENCE ON COTS—		Cultivated area.	Incidence of Col. 14 on Col. 17 in	Percentage to total area.	CROP.	
	Cropped.	Matured.		Cropped area.	Matured area.					Two.	Three.										
I	2	3	1	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Class I A.—Sugar cane																					
Melons	5.60	5.54	96.40	17.21	17.10	.....	224	202	40	162	28.93	29.24	.....	54	27	4.82	4.87	.....	.....	..02	Sugar-cane.
Lucerne	4.20	4.16	42.86	10.19	10.29	.....	426	378	76	302	71.90	72.60	.....	301	50	11.90	12.02	.....	.....	..02	Melons.
Red pepper	22.20	21.98	255.06	11.51	11.63	2,503.32	250	2,253	450	1,803	81.22	82.03	.....	601	301	13.56	13.59	.....	.....	..10	Red pepper.
Tobacco	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Tobacco.
Roses	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Roses.
Gardens	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Gardens.
Total Class I A.																					
Class I B.—Maize																					
Maize	1,902.60	1,883.57	17,804.00	9.36	9.45	42,004.79	4,207	38,398	7,080	30,718	16.14	16.31	.....	10,240	5,120	2.69	2.72	.....	.....	7.08	Maize.
Cotton	1,801.60	1,753.59	10,363.86	5.76	5.82	61,842.45	6,184	55,658	11,132	44,526	24.71	24.96	.....	14,842	7,421	4.12	4.16	.....	.....	7.55	Cotton.
Linseed	290.80	287.89	3,730.60	13.04	13.17	13,222.72	1,322	11,901	2,380	9,521	32.74	33.07	.....	3,173	1,586	5.45	5.51	.....	.....	1.22	Linseed.
Barley	3,321.01	3,287.79	43,608.66	13.16	13.29	105,339.96	10,540	94,800	18,972	75,888	22.85	23.08	.....	25,276	12,618	8.81	8.85	.....	.....	13.92	Barley.
Rice	1.60	1.55	7.40	4.62	4.68	37.29	4	33	6	27	16.87	17.09	.....	6	4.50	2.81	2.83	.....	.....	0.1	Rice.
Guilchami	62.46	61.78	479.00	7.68	7.95	14.37	144	1,293	259	1,034	16.57	16.71	.....	345	173	2.77	2.80	.....	.....	2.26	Guilchami.
Indigo	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Indigo.
Poppy	25.66	25.35	494.00	19.30	19.49	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Poppy.
Vegetables	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Vegetables.
Phania	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Phania.
Methi	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Methi.
Zira	77.60	76.83	261.80	3.41	3.45	26.98	265	2,383	476	1,907	24.38	24.82	.....	636	318	4.10	4.14	.....	.....	3.33	Zira.
Gujar	403.60	399.56	5,238.40	12.98	13.11	14,393.80	1,439	12,953	2,591	10,464	25.68	25.94	.....	3,155	1,727	4.27	4.31	.....	.....	1.63	Gujar.
Onions	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Onions.
Lahsan	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Lahsan.
Singhara	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Singhara.
Total Class I A.																					
Total Class I A. & B.																					
Class II.—Bejhar																					
Gum	968.80	925.20	6,278.20	6.18	6.79	14,135.27	1,443	12,993	2,598	10,395	10.73	11.25	.....	3,465	1,733	1.79	1.87	.....	.....	3.92	Bejhar.
San (Hemp)	2,048.00	1,955.84	7,074.80	3.46	3.62	16,882.64	1,683	15,130	3,030	12,120	5.92	5.19	.....	4,040	2,020	4.98	5.08	.....	.....	8.28	Gum.
Mustard	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Mustard.
Carrots	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Carrots.
Others	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Others.
Total Class II																					
Class III.—Jowar																					
Jowar	9,031.41	7,315.43	16,898.40	1.87	2.31	39,239.76	3,924	35,316	7,063	28,253	3.13	3.86	.....	7,063	3,531	3.89	4.8	.....	.....	30.9	Jowar.
Bajra	4,246.21	3,439.42	14,115.40	3.33	3.83	35,238.37	3,524	31,709	6,341	25,368	5.98	7.38	.....	6,341	3,171	7.5	9.2	.....	.....	14.57	Bajra.
Mung	280.40	227.12	524.80	1.87	2.31	1,882.99	188	1,695	339	1,356	4.84	5.97	.....	339	169	6.0	7.1	.....	.....	9.6	Mung.
Moth	540.41	437.73	652.20	1.21	1.49	1,870.17	187	1,683	337	1,346	2.43	3.07	.....	337	168	3.1	3.8	.....	.....	1.85	Moth.
Kanuni	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kanuni.
Til	1,764.66	1,429.33	1,884.00	1.07	1.32	10,607.07	1,061	9,546	1,909	7,637	4.33	5.34	.....	953	.....	5.4	6.6	.....	.....	6.03	Til.
Gwar	1.40	1.13	10.00	7.14	8.83	20.00	2	18	4	31	10.00	12.39	.....	4	2	1.43	1.77	.....	.....	0.3	Gwar.
Channula	7.40	6.06	16.00	2.16	2.67	43.00	4	39	8	31	4.19	5.17	.....	387	387	5.2	6.4	.....	.....	0.3	Channula.
Marua	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Marua.
Kulath	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Kulath.
Urd	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Urd.
Total Class III.																					
Total Class I A. & B. & C.																					
Total Class I A. & B. & C. & D.																					
Total Class I A. & B. & C. & D. & E.																					
Total Class I A. & B. & C. & D. & E. & F.																					
Total Class I A. & B. & C. & D. & E. & F. & G.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H. & I.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H. & I. & J.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H. & I. & J. & K.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H. & I. & J. & K. & L.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H. & I. & J. & K. & L. & M.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H. & I. & J. & K. & L. & M. & N.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H. & I. & J. & K. & L. & M. & N. & O.																					
Total Class I A. & B. & C. & D. & E. & F. & G. & H. & I. & J. & K. & L. & M. & N. & O. & P.																					

APPENDIX XV. (E)
Statement showing Average (Five years) Area and Assets, &c., of Circle Rajgarh,—District Ajmer.

CROP.	AVERAGE AREA		Average total produce	AVERAGE CROP		Average value of total area	Deduct 10 per cent for materials	Balance	AVERAGE VALUE OF PER—		Rate of own. share	Amount of owner's share (net assets)	Half Net assets	Increase on Col. 14 or Cols—		Cultivated area	Incidence of Col 14 on Col 19	Percentage to total area	Crop.		
	Cropped	Matured		Cropped area.	Matured area.				Two	Three											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	
Class I. A —Sugar-cane																					
Melons	16 00	13 71	710	16 25	46 94	610	64	576	115	481	28 81	29 23		153	76 50	4 78	4 8				Sugar cane.
Lucerne	8 60	8 47	101	11 98	12 16	860	56	774	153	619	71 98	73 08		203	103	11 98	12 16				Melons.
Red pepper	20 40	20 05	337 80	16 56	16 81	3,297 47	3 80	2,967 4	593	2,374	116 37	118 17		792	396	19 11	19 71				Lucerne.
Tobacco	20	20	40	2 00	2 00	4 00		4	1	3	15 00	15 00		1	50	2 50	2 50				Red pepper.
Roses																					Tobacco.
Gardens	2 20	2 17	3 60	2 55	2 58	176 00	18	158	32	126	37 27	58 06		42	21	9 53	9 6				Roses.
Total Class I. A																					
	47 40	46 69	1,186 80	25 04	25 42	4,977 47	498	4,479	896	3,583	75 59	76 74		1,194	597	12 59	12 79	36 02	16 57	-21	Gardens.
Class I. B.—Maize																					
Cotton	2,898 00	2,854 5	24,084 40	8 31	8 44	57,115 21	5 715	51,140	10,281	11,144	14 20	14 41		13,715	6,858	2 37	2 40				Maize.
Lansed	2,143 60	2,106 91	16,219 80	6 64	6 71	97,016 31	9 702	87,314	17,463	69,851	28 58	29 02		21,251	11,642	4 76	4 84				Cotton
Wheat	550 40	512 14	5,742 00	2 73	2 77	21 21	2	21	4	17	7 73	7 83		6	3	1 36	1 38				Lansed.
Barley	3,152 80	3,103 51	36,071 44	10 13	10 59	21,198 05	2 120	19,078	3,816	15,262	27 73	28 14		5,087	2,543	4 62	4 68				Wheat.
Rice	8 80	8 51	71 80	8 33	8 44	89,160 94	8 916	80,245	16,049	64,196	20 36	20 67		21,908	10,699	3 40	3 43				Barley.
Gulcham	83 80	82 34	1,071 80	12 59	12 78	379 30	38	342	68	271	31 86	32 20		91	45	5 23	5 26				Rice
Indigo	14 40	14 11	70 60	1 86	4 91	700 00	70	630	121	503	35 00	35 54		168	84	5 83	5 92				Gulcham.
Poppy	46 00	47 31	1,026 40	22 31	22 63	1,636 00	163	1,491	298	1,193	25 93	26 33		198	199	4 33	4 38				Indigo.
Vegetables																					Poppy.
Methu	22 40	22 06	274 10	12 25	12 44	960 10	96	865	173	692	30 89	31 37		231	116	5 18	5 26				Vegetables.
Zira	13 20	13 00	89 40	6 77	6 85	891	89	805	161	648	40 79	40 54		215	107	8 11	8 23				Methu.
Gujar	618 80	607 54	7,935 80	12 86	13 06	21,344 39	2,133	21,900	4,182	17,623	28 42	28 93		5,812	2,921	1 74	1 81				Zira.
Onions																					Gujar.
Lahsan	20	20	6 00	30 00	30 00	12 00	1	11	2	9	15 00	45 00		2	2	10 00	10 00				Onions.
Singhara																					Lahsan.
Total Class I. B.																					
	9,852 40	9,704 62	92,655 20	9 40	9 56	2,96,654 24	29,665	2,66,990	53,398	2,13,592	21 68	22 01		71,197	35,599	3 61	3 67	8327 58	4 28	44 43	Singhara.
Total Classes I. A. & B.																					
	9,899 80	9,751 31	93,842 00	9 48	9 62	2,01,631 71	30,163	2,71,469	54,294	2,17,175	21 94	22 27		72,391	36,196	3 66	3 71	8363 60	4 33	44 64	
Class II.—Bellar																					
Gram	606 00	584 79	4,065 60	6 71	6 96	10,892 60	1,089	9,803	1,901	7,842	12 91	13 11		2,611	1,307	2 16	2 20				Bellar.
Hemp	1,462 40	1,411 22	5,319 80	3 66	3 79	11,197 89	1,124	12,778	2,336	10,222	6 99	7 21		3,408	1,701	1 17	1 21				Gram.
Mustard	115 20	111 17	218 60	2 16	2 24	1,118 70	112	1,007	201	806	7 00	7 23		268	131	1 16	1 20				Hemp.
Carrots	28 60	27 02	214 60	8 41	8 74	177 15	15	159	32	127	4 54	4 70		12	8	7 3	7 8				Mustard.
Others	76 80	74 11	214 60	3 18	3 30	733 80	73	661	132	529	6 54	7 14		176	89	1 13	1 19				Carrots.
Total Class II.																					
	2,288 40	2,208 31	10,144 80	4 43	4 59	27,120 14	2,712	24,408	4,882	19,526	8 53	8 84		6,508	3,254	1 42	1 47	2242 63	1 45	10 11	Others.
Class III.—Jowar																					
Bajra	4,809 60	4,967 02	7,221 00	1 56	1 59	10,195 19	1,613	14,792	2,938	11,811	2 46	2 98		2,937	1,479	31	37				Jowar.
Mung	3,236 60	2,670 26	8,346 40	2 58	3 13	20,693 17	2,069	18,624	3,725	11,999	4 60	5 38		3,725	1,862	58	70				Bajra.
Moth	262 60	216 64	166 20	1 78	2 15	1,616 03	162	1,451	200	1,161	1 43	1 70		291	115	53	67				Mung.
Kangani	829 10	644 26	1,235 20	1 18	1 71	3,303 51	330	2,974	597	2,179	2 87	3 48		597	298	36	44				Moth.
Til	2,105 20	2,119 29	2,705 80	1 04	1 21	17,247 56	1,725	15,523	3,107	12,119	1 77	5 76		3,107	1,552	60	72				Kangani.
Gwar	34 16	69 62	177 10	2 10	2 65	351 40	36	419	64	253	3 02	3 07		28	14	32	38				Til.
Chandola	44 16	36 17	56 20	1 27	1 54	135 02	1	140	28	112	2 51	3 07		3	1	32	38				Gwar.
Maru	1 60	8 20	16 40	5 12	6 21	16 40		14	3	11	6 87	8 33		3	1 50	91	98				Chandola.
Kulath	107 00	88 28	101 66	95	1 13	291 20	21	183	36	117	1 37	1 07		37	19	18	22				Maru.
Urd	60	40	1 26	2 00	2 15	5 10	1	4	1	5	5 00	6 12		1	50	83	1 02				Kulath.
																					Urd.

Thirty-three per cent.

Twenty-five per cent

Comparative Circle Statement for Five years average figures (exclusive of Bhusa and Straw), District Ajmer:

Crops.	AVERAGE MATURED AREA.					AVERAGE OUT-TURN PER MATURED AREA.					INCIDENCE OF MATURED AREA ON HALF NET ASSETS.					TOTAL DISTRICT AJMER.				Crops.
	Ajmer.	Gangwana.	Pushkar.	Rajgarh.	Ramsar.	Ajmer.	Gangwana.	Pushkar.	Rajgarh.	Ramsar.	Ajmer.	Gangwana.	Pushkar.	Rajgarh.	Ramsar.	Average matured area.	Average outturn per matured area.	Incidence of matured area on 1 assets.		
Class I. A.—Sugar-cane	36.01	5.54	103.15	.....	.....	.....	14.53	8.10	8.04	46.94	32.44	6.05	.....	12.12	.....	130.19	8.06	10.55	Sugar-cane.
Melons	48.71	4.16	4.16	137.6	.....	.....	10.63	57.27	10.00	46.94	32.44	9.09	4.87	9.13	.....	88.75	48.06	7.39	Melons
Lucerne	5.35	21.98	4.36	8.47	.....	.....	21.67	35.03	10.29	14.06	9.88	12.13	12.02	10.00	.....	28.81	15.31	12.15	Lucerne
Red pepper	19.81	.....	.....	20.69	.....	.....	1.33	19.46	11.63	16.81	23.78	23.66	13.69	15.37	.....	86.91	18.10	22.02	Red pepper
Tobacco	22.37	.....	.....	.....	.....	.....	.....	7.17	.....	.....	.....	9.00	.....	.....	.....	23.95	18.61	22.35	Tobacco
Roses	1.98	.....	.....	.....	.....	.....	4.0	25.95	5.00	11.92	2.58	9.60	.....	.....	.....	2.33	6.30	9.66	Roses
Gardens	74.25	.....	6.14	2.17	.....	.....	3.9	.....	.....	.....	.....	9.70	10.00	9.62	9.68	53.15	21.16	9.68	Gardens
Total Class I. A.	207.51	31.88	118.01	46.69	49.05	20.98	12.41	9.55	25.42	23.37	11.71	11.92	11.92	12.02	12.79	18.78	21.78	12.69		
Class I. B.—Maize	2,011.88	1,883.57	2,334.4	2,854.52	6,291.51	7.56	9.45	10.21	8.44	9.13	2.20	2.20	2.72	2.95	2.40	13,254.95	8.95	2.56	Maize	
Cotton	1,193.54	1,783.59	208.50	2,409.94	6,075.43	6.76	5.82	6.33	6.74	6.89	4.73	4.16	4.16	4.00	4.84	11,684.95	6.69	4.76	Cotton	
Linseed	.....	.....	1.00	2.17	10.24	.....	.....	7.80	2.77	1.41	.....	.....	.....	.....	.....	13.11	2.10	1.19	Linseed
Wheat	461.54	297.89	112.07	542.14	2,328.34	12.13	13.17	8.93	10.59	8.27	5.26	5.51	5.51	4.18	4.69	3,731.98	9.48	4.18	Wheat	
Barley	3,250.37	3,250.37	1,121.08	3,105.51	5,345.55	13.61	13.29	9.79	11.62	10.95	4.15	3.85	3.85	3.09	3.15	16,310.30	12.00	3.62	Barley	
Rice	4.0	1.58	31.45	8.51	5.52	18.50	4.68	7.02	8.14	10.18	11.25	2.85	2.85	4.47	5.29	50.46	7.63	4.79	Rice	
Gulchani	18.81	61.78	2.58	82.54	75.06	10.21	7.73	2.25	12.78	5.37	8.70	8.70	7.73	7.73	5.92	210.77	8.81	3.19	Gulchani	
Indigo	64.94	.....	.....	14.18	6.11	7.21	.....	.....	4.91	.....	.....	.....	.....	.....	.....	85.23	6.38	7.66	Indigo
Poppy	160.38	25.35	26.70	45.31	63.04	22.10	19.49	11.22	22.65	18.13	6.66	1.38	1.38	4.34	4.33	320.78	20.49	5.22	Poppy	
Vegetables	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Vegetables
Dhania	5.35	.....	.....	22.06	.....	17.83	2.01	.....	12.44	4.65	7.51	.....	.....	.....	5.26	435.39	5.20	2.19	Dhania
Methi	20.79	76.83	4.36	13.00	407.39	1.52	3.15	9.04	6.88	3.56	1.83	4.14	10.06	8.23	4.27	149.85	4.67	4.41	Methi	
Zira	492.42	389.56	150.82	607.51	776.77	15.83	13.11	9.99	13.06	12.58	5.18	4.31	3.09	4.81	4.45	2,433.11	13.27	4.55	Zira	
Gujari	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Gujari
Onions	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	Onions
Lahsun	6.73	1.78	.....	.....	3.55	20.27	21.01	.....	30.00	82.70	4.75	3.06	.....	.....	10.00	12.26	38.61	9.22	Lahsan.
Singhara	29	.....	.....	.....	60	4.00	.....	.....	.....	4.67	1.70	.....	.....	.....	1.67	80	4.50	1.68	Singhara.
Total Class I. B.	7,687.35	7,810.31	1,901.20	9,704.62	21,613.86	11.11	10.52	9.45	9.55	9.01	3.97	3.73	3.73	3.40	3.67	48,717.34	9.73	3.70		
Total Class I. A. & B.	7,894.86	7,842.19	2,019.21	9,751.31	21,662.91	11.58	10.53	9.45	9.62	9.05	4.19	3.97	3.76	3.90	3.71	49,170.48	9.82	3.78		
Class II.—Bejhar	148.32	925.20	130.85	331.79	1,010.31	7.75	6.79	4.40	6.96	7.53	2.20	1.87	1.87	1.33	2.23	2,799.50	7.03	2.17	Bejhar.	
Gram	928.62	1,955.84	152.81	1,411.22	2,414.11	4.41	3.62	4.22	3.79	4.46	1.10	1.03	1.03	1.24	1.21	6,892.93	4.07	1.29	Gram.	
Sun (Hemp)	.....	10	3.95	.....	1.27	.....	8.12	1.87	.....	3.45	.....	.....	.....	.....	.....	5.41	2.47	83	Sun (Hemp)
Sarson	5.94	4.01	94	111.17	90	13.20	953	6.17	2.24	4.00	7.07	.....	.....	.....	.....	122.96	2.76	1.48	Sarson
Carrots	21.06	12.42	12.63	27.02	6.15	17.83	15.32	21.56	8.71	15.74	1.61	1.37	1.37	2.24	.....	78.68	15.21	1.37	Carrots
Others	165.42	6.88	11.47	73.11	110.60	5.63	7.27	11.37	3.30	12.10	.....	.....	.....	.....	.....	368.48	7.33	2.64	Others.
Total Class II.	1,269.36	2,904.54	312.08	2,208.31	3,573.67	5.23	4.68	5.32	4.59	5.58	1.61	1.31	1.31	1.41	1.47	102,677.96	5.05	1.58		
Class III.—Jowar	3,835.43	7,315.43	137.11	3,067.92	8,635.01	2.59	2.31	2.18	1.90	2.85	6.1	4.8	4.8	4.7	.....	23,910.91	5.33	5.1	Jowar.
Bajra.	4,132.76	3,439.42	1,618.11	2,670.20	2,425.90	3.82	4.11	3.31	3.13	2.16	8.6	4.8	4.8	7.4	.....	14,116.40	5.32	7.8	Bajra.
Mung	100.18	227.12	4.17	216.61	2,228.85	3.15	2.31	1.31	2.15	2.01	9.0	7.1	7.1	4.8	.....	916.90	2.36	7.5	Mung.
Moith	1,382.17	437.73	1,251.00	681.26	521.05	1.53	1.19	1.52	1.79	1.52	3.4	3.8	3.8	5.1	.....	4,276.11	1.68	4.1	Moith.
Kangani	42.90	1,429.33	41.25	2,149.29	2,730.77	12.88	.....	.....	.....	.....	3.60	.....	.....	.....	.....	42.80	12.89	4.50	Kangani.
Til	1,693.06	1,159.72	1.17	69.62	614.43	1.18	1.32	2.06	1.26	2.01	8.0	6.6	6.6	1.65	7.2	8,063.70	2.60	8.5	Til.	
Guar	52.80	6.00	2.50	30.47	7.92	1.33	2.67	3.78	2.55	2.16	4.9	4.0	4.0	4.3	.....	296.07	2.60	4.7	Guar.
Chindola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	105.50	1.49	3.9	Chindola.
Marua	83	16	34	1.32	1.02	7.17	3.75	18.82	6.21	6.26	1.20	3.1	3.1	2.91	1.13	3.67	8.39	1.53	Marua.	
Kulath	90.42	8.32	1.50	88.28	81.09	2.41	1.83	2.27	1.15	1.76	4.4	3.6	3.6	3.3	.....	269.71	1.78	3.3	Kulath.
Urd	66	.....	5.35	19	1.02	6.67	.....	3.45	2.35	3.35	1.52	.....	.....	1.21	1.02	7.52	3.94	1.20	Urd.
Total Class III.	11,587.13	12,864.74	3,092.51	9,884.49	14,780.99	2.88	2.66	2.72	2.09	2.51	7.1	6.2	6.2	6.6	5.5	52,209.86	2.56	6.4		
Grand Total	20,751.35	23,611.47	5,423.80	21,844.11	40,017.57	6.35	5.52	5.38	5.70	6.32	2.09	1.75	1.75	1.91	2.05	1,11,648.30	5.99	2.11		

APPENDIX XVII.

CIRCLE.	Crop Class.	Total Bown area (the five years average)	Average "Budd" (crop- ped areas), five years.	50 per cent of net assets.			20 PER CENT NET ASSETS RATES ON "BOD AREAS" IN—			40 PER CENT OF NET ASSETS.			AVERAGE CROP RATE PROPOSED IN—			Resultant Revenue.			Percentage of Net Assets.			{ REASON GIVEN BY PROPOSER FOR RATE OVER LAST SETTL- MENT REVENUE. }			Soils.			Average cultivated area of the five years.			SOIL MATES GIVEN BY THE PROPOSER BASED ON CULTI- VATED AREA FOR FIVE YEARS.			Resultant Revenue.			Last Settlement rates +50 per cent.			Last Settlement rates +50 per cent applied to present five year aver-			Last Settlement Soil.			Last Settlement assessed area.			Last Settlement Revenue			Last Settlement Rates Applied to present five years average cultivated area.		
				Decimals.	Rupees and pice.	5	6	7	8	Decimals.	Rupees and pice.	9	10	11	12	Amount.	Percent- age.	13	14	15	16	Decimals.	Rupees and pice.	17	18	19	20	21	22	23	24	25																						
																																	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Ajmer	I	7,975	7,893	33,066	4-19	4	3 0	...	3-50	3 8 0	27,633	...	...	...	...	Chahi.	4,586	5-50	5 8 6	25,223	5-47	25,085	4-56	5,172	29,583	...																								
"	II	1,410	1,269	2,011	1-61	1 9 9	...	1-31	1 5 0	1,665	...	...	...	...	...	Talabi.	231	4-75	4 12 6	1,097	4-77	1,102	3 97	166	639	...																							
"	III	14,045	11,587	3,275	-71	0 11 6	...	-56	0 9 0	6,518	...	...	...	...	...	Abi.	1,214	1-56	1 9 0	1,897	1-57	1,906	1-31	1,226	1,006	...																							
Total	...	23,430	20,751	13,352	2 09	2 1 6	34,706	...	1-73	1 11 6	35,817	41-28	8-97	2,945	...	Barnani.	15,254	-53	0 8 6	8,109	-53	8,090	-11	16,000	7,622	...																												
Gangwana	I	7,921	7,842	29,498	3-76	3 12 0	...	2-82	2 13 0	22,115	...	...	...	...	...	Chahi.	3,069	4-41	4 7 0	13,619	4-43	13,596	3-69	3,519	13,096	...																							
"	II	3,041	2,905	3,790	1-31	1 5 0	...	1-00	1 0 0	2,905	...	...	...	...	...	Talabi.	1,209	1-88	1 11 6	2,267	1-81	2,183	1-51	1,438	2,172	...																							
"	III	15,883	12,865	8,003	-62	0 10 0	...	-47	0 7 5	6,017	...	...	...	...	...	Barnani.	19,151	-63	0 10 6	12,159	-60	11,672	-50	21,223	10,620	...																							
Total	...	26,815	23,012	41,291	1-75	1 12 6	33,033	...	1-33	1 5 3	31,007	37-62	9-29	2,642	...	Total..	24,316	1-27	1 4 6	31,108	1-26	30,888	1-05	27,625	28,425	25,742																												
Puskhar	I	2,699	2,010	7,575	3-90	3 14 6	...	3-28	3 4 6	6,625	...	...	...	...	...	Chahi.	945	5 00	5 0 0	4,725	5-21	4,923	4-31	681	2,651	...																							
"	II	332	312	439	1 41	1 6 6	...	1-25	1 4 0	380	...	...	...	...	...	Talabi.	78	3-56	3 9 6	278	3-70	289	3-08	96	236	...																							
"	III	3,701	3,093	2,946	-66	0 10 6	...	-47	0 7 6	1,450	...	...	...	...	...	Abi.	770	2-50	2 8 0	1,925	2-81	2,104	2-34	977	2,285	...																							
Total	...	6,075	5,424	10,360	1-91	1 14 6	8,298	...	1-56	1 9 0	8,466	40-85	22-66	1,564	...	Barnani.	3,844	-41	0 6 6	1,562	-46	1,708	-38	3,565	1,369	7,272																												
Raigarh	I	9,900	9,751	36,196	3-71	3 11 6	...	2-97	2 15 6	28,919	...	...	...	...	...	Chahi.	4,077	4-63	4 10 0	18,856	4-50	18,316	3-75	4,258	15,965	...																							
"	II	2,288	2,208	5,403	1-47	1 7 6	...	-44	1 2 9	2,388	...	...	...	...	...	Talabi.	1,208	4-75	4 12 6	5,738	4-66	5,629	3-88	7,147	8,339	...																							
"	III	11,981	9,885	5,403	-35	0 9 0	...	-44	0 7 0	4,325	...	...	...	...	...	Abi.	1,428	1-78	1 12 6	2,514	1-76	2,513	1-47	1,903	2,792	...																							
Total	...	24,169	21,844	44,833	2 05	2 1 6	35,862	...	1-64	1 10 3	35,862	39-98	5-14	1,753	...	Total..	22,238	1-61	1 9 9	35,865	1-59	35,021	1-32	25,827	34,109	29,341																												
Kamsar	I	21,993	21,663	79,455	3-67	3 10 6	...	2-97	2 15 6	64,313	...	...	...	...	...	Chahi.	4,407	5-31	5 5 0	23,412	4-83	21,286	4-03	4,603	18,540	...																							
"	II	3,919	3,574	6,695	1 88	1 11 0	...	1-41	1 6 6	5,026	...	...	...	...	...	Talabi.	5,917	5-00	5 0 0	29,935	4-66	27,513	3-88	6,237	24,203	...																							
"	III	17,389	14,781	9,473	-64	0 10 3	...	-47	0 7 6	6,928	...	...	...	...	...	Abi.	2,089	2-06	2 1 0	4,309	1-84	3,844	1-53	2,914	3,085	...																							
Total	...	43,331	40,018	95,603	2 39	2 6 0	76,483	...	1-95	1 15 0	76,267	39-88	32-58	11,032	...	Barnani.	25,297	-75	0 12 0	18,927	-73	18,423	-61	27,171	16,387	58,388																												
Total District.	I	49,828	49,170	1,86,070	3-78	3 12 6	...	3-04	3 0 9	1,49,655	...	...	...	...	...	Chahi.	17,084	5-00	5 0 0	85,835	4-87	83,296	4 06	18,263	74,115	...																							
"	II	11,020	10,268	16,219	1 58	1 9 3	...	1-22	1 3 6	12,575	...	...	...	...	...	Talabi.	8,218	4-81	1 13 0	39,761	4-57	37,525	3-81	9,133	34,842	...																							
"	III	63,602	52,211	31,260	-64	0 10 3	...	-18	0 7 8	26,628	...	...	...	...	...	Abi.	6,710	1-92	1 14 9	12,942	1-90	12,615	1-58	7,528	11,910	...																							
Grand Total..	...	1,23,830	1,11,649	2,35,489	2-11	2 2 0	1,88,392	...	1-68	1 10 10	1,87,478	39-81	13 95	22,538	...	Total..	1,11,326	1-68	1 11 0	1,88,022	1-63	1,81,892	1-36	1,20,760	1,64,520	1,51,894																												

APPENDIX XVIII.

Statement showing the Average Matured Areas, Produce and assets &c., of Jagir Villages, District Ajmer for the past 12 years.

Crop.	Matured Area.	Gross Produce.	Value of Gross Produce.	Deduct 5% for Menials.	Balance.	Deduct 20% (excess of Bazaar prices).	Balance.	Owner's share (3 of Col. 8) = Net assets.	Net assets.	Incidence of Col. 2 on Col. 10 = 1/3 Net assets Rates.	Average cultivated area.	Incidence of 1/3 Net assets on cultivated area.
1	2	3	4	5	6	7	8	9	10	11	12	13
Class I.— Lucerne ...	13	547	1,250	62	1,188	238	950	317	159	12.23	...	...
Gardens ...	19	380	1,513	76	1,437	287	1,150	383	191	10.05	...	...
Sugar-cane.	77	1,057	5,408	270	5,138	1,028	4,110	1,370	685	8.90	...	...
Red pepper	26	335	3,082	154	2,928	585	2,343	781	390	15.00	...	...
Vegetables.	173	4,373	6,910	346	6,564	1,313	5,251	1,750	875	5.06	...	...
Total Class I ...	308	6,692	18,163	908	17,255	3,451	13,804	4,601	2,300	7.47	279	8.24
Class II.— Barley ...	5,352	60,102	1,53,094	7,655	1,45,439	29,088	1,16,351	38,783	19,391.50	3.62	...	...
Wheat ...	601	5,336	18,410	920	17,490	3,498	13,992	4,664	2,332	3.88	...	...
Gujai ...	355	3,782	16,380	819	15,561	3,112	12,449	4,150	2,075	5.85	...	...
Poppy ...	17	95	632	31	601	120	481	160.33	80.16	4.72	...	...
Dhania ...	3	19	117	6	111	22	89	30	15	5.00	...	...
Zira ...	49	153	1,532	77	1,455	291	1,164	388	194	3.96	...	...
Maize ...	2,734	21,244	49,737	2,487	47,250	9,450	37,800	12,600	6,300	2.30	...	...
Cotton ...	3,079	19,809	1,19,558	5,978	1,13,580	22,716	90,864	30,288	15,144	4.92	...	...
Rice ...	25	179	916	46	870	174	696	232	116	4.64	...	...
Tobacco ...	17	33	3	...	3	1	2	.67	.34	2.00	...	...
Total Class II ...	12,215.17	1,10,719.33	3,60,379	18,019	3,42,360	68,472	2,73,888	91,296	45,648	3.74	11,125	4.10
Total Classes I & II ..	12,523.17	1,17,411.33	3,78,542	18,927	3,59,615	71,923	2,87,692	95,897	47,948	3.83	11,404	4.20
Class III.— Mustard. .	2	3	14	1	13	2	11	4	2	1.00	...	...
Gram ..	1,917	6,970	18,830	940	17,890	3,578	14,312	4,770	2,385	1.24	...	...
Bejhar ...	715	3,940	9,437	472	8,965	1,793	7,172	2,391	1,196	1.67	...	...
Gulchani...	45	311	932	47	885	177	708	236	118	2.62	...	...
Others ...	231	2,058	6,173	309	5,864	1,173	4,691	1,564	782	3.39	...	...
Total Class III ...	2,910	13,282	35,386	1,769	33,617	6,723	26,894	8,965	4,483	1.54	3,055	1.47
Class IV.— Jowar ...	4,953	10,369	22,423	1,121	21,302	4,260	17,042	5,681	2,841	.57	...	...
Bajra ...	4,938	13,529	32,639	1,632	31,007	6,202	24,805	8,268	4,134	.84	...	...
Til ...	1,111	1,791	10,058	503	9,555	1,911	7,644	2,548	1,274	1.15	...	...
Mung ..	226	399	1,256	63	1,193	239	954	318	159	.70	...	...
Moth ...	1,873	3,010	7,454	373	7,081	1,416	5,665	1,888	944	.50	...	...
Kulath...	102	146	292	15	277	55	222	74	37	.36	...	...
Chanola & Urd ...	140	244	809	40	769	154	615	205	102	.73	...	...
Total Class IV ...	13,343	29,448	74,931	3,747	71,184	14,237	56,947	18,982	9,491	.71	19,939	.48
Grand Total	28,776.17	1,60,181.33	4,88,859	24,443	4,64,416	92,863	3,71,553	1,23,844	61,922	2.15	34,398	1.80

NOTE.—No account has been taken in this statement of Bhusa and Straw.

PRESENT.

PROPOSED.

PARTICULARS.	Amount.	Total monthly amount.	Total yearly amount.	REMARKS.	PARTICULARS.	Amount.	Total monthly amount.	Total yearly amount.	REMARKS.
1	2	3	4	5	1	2	3	4	5
I. (a) Revenue Extra Assistant Commissioner 250-30-400 ...	Rs. 400	Rs. ...	Rs. ...		I. Revenue Extra Asstt. Commissioner Senior @ Rs. 250-30-400 ...	Rs. 400	Rs. ...	Rs. ...	Rs. ...
REVENUE EXTRA ASSTT. COMM.'S STAFF.					Junior @ Rs. 200-10-250 ...	250	...	...	1 Reader @ 30
(1) Reader @ Rs. 30 ...	30	...	...		* AJMER ...	87	...	...	1 Clerk @ 30
(1) Clerk @ " 30 ...	30	...	...		Merwara ...	57	794	9,328	1 Ahlmud @ 15
(1) Ahlmud @ " 15 ...	15	...	...		IV. (a) SUPERVISING STAFF—	...	...	31,000	2 Peons @ 6 12
(1) " @ " 10 ...	10	...	...						Total Rs. 87
(2) Peons @ " 6 ...	12	497	5,964		(1) Inspector @ Rs. 75 ...	75	...	...	*
II. PATWARIS—					(1) Do @ " 60 ...	60	...	...	Rs. ...
Ajmer ...	1,485	...	...		Horse allowance @ " 20 ...	40	...	...	1 Reader @ 30
Benwar ...	608	...	...		(4) Peons @ " 6 ...	24	199	2,388	1 Ahlmud @ 15
Todgarh ...	401	2,494	29,928		(Mirdahas).				2 Peons @ 12
III. (a) SUPERVISING STAFF—									Total @ 57
(1) Registrar @ Rs. 40 ...	40	...	...		(b) (2) Registrars @ Rs. 40 ...	80	...	...
(2) Registrars @ " 25 ...	50	...	...		(1) Registrar @ " 30 ...	30	...	...
(2) Girdawars @ " 40 ...	80	...	...		(10) Girdawars @ " 30 ...	300	...	...
(2) Do. @ " 35 ...	70	...	...		(2) " @ " 35 ...	70	...	...
(3) Do. @ " 30 ...	90	...	...		(4) Moharrir for Registrar Girdawars @ Rs. 15 ...	60	...	...
(3) Do. @ " 25 ...	75	...	...		15 Peons for the above @ Rs. 6 ...	90	630	7,560	
III. (b) PEONS FOR THE ABOVE—					V. PATWARI CLASS—				
(1) 3 @ Rs. 6 ...	18	...	...		(i) AJMER—				
(2) 10 @ " 5 ...	50	...	5,676		(1) Teacher @ Rs. 40 ...	40	...	...
PATWARI INSTRUCTOR @ Rs. 50-5-75	75	...	...		(2) Mirdahas @ " 6 ...	12	52	624	
(2) Mirdahas @ " 5 ...	10	...	...		(ii) MERWARA—				
(1) Peon @ " 5 ...	5	90	1,080		(1) Teacher @ Rs. 30 ...	30	...	...
					(2) Mirdahas @ " 6 ...	12	42	504	
TOTAL	...	3,554	42,648		TOTAL			51,604	

INCREASE.		Rs.
Revenue Extra Assistant Commissioner and Staff	...	...
Patwaris	...	3,564
Inspectors	...	1,072
Girdawars	...	2,388
Patwari class	...	1,884
		48
Total Rs. 8,956		

APPENDIX XX—(A).

Tahsil Ajmer,

Mauza Ansari,

Circle Rajgarh,

Kharif 1307 Fasli.

Crop.	AREAS.				Total produce on Bud areas in Maunds.	Remarks as to areas to be specially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard normal yields per acre.	Col. 7 multiplied by Col. 9 (Normal yields in the actual assessable areas).	The Vil. Large Rates. { Class I. 3-8-0. Class II. 1-8-0. Class III. 0-8-0.
	Sown.		Bud.				Area.	Produce.			
	2	3	4								
1	2	3	4	5	6	7	8	9	10	11	
CLASS I.—Maize	57	29	28	64	.....	28	64	8 20	Mds.	{ 80 × 3-8-0 = 280 0 0 281 of 280-0-0 = 86 9 0 282 of 280-0-0 = 86 9 0
Cotton	40	29	51	110	.....	51	110	6 30	238	
Red pepper	1	1	1	10	.....	1	10	12 0	12	
Lucerne	1	1	...	...	...	...	...	...	...
TOTAL CLASS I	139	59	80	184	.....	80	184	...	595	86 9 0
CLASS II.	...	...	...	...	Nil.	...	...	...	...	.....
TOTAL CLASS II	...	...	...	...	.....	...	...	...	...	.....
CLASS III.—Juar	40	35	5	2	.....	5	2	2 0	10	{ 9 × 0-8-0 = 4 8 0 111 of 4-8-0 = 2 14 0 112 of 4-8-0 = 2 14 0
Bajra	91	87	4	12	.....	4	12	3 0	12	
Til	24	24	...	...	.....	...	...	...	...
Kulath, Moth and Mung.	12	12	...	...	.....	...	...	...	...
TOTAL CLASS III	167	158	9	14	.....	9	14	...	22	2 14 0
TOTAL VILLAGE	306	217	89	198	.....	89	198	...	617	89 7 0
CLASS I.—Barley	21	...	21	120	.....	21	120	11 20	376	{ Rabi 1307 F. 31 × 3-8-0 = 108 8 0 111 of 108-8-0 = 51 2 0
Gujar	5	...	5	43	.....	5	43	13 0	65	
Wheat	1	...	1	6	.....	1	6	10 0	10	
Methi	2	2	...	...	.....	...	...	...	...
Onions	1	...	1	1	.....	1	1	10 0	10	
TOTAL CLASS I	33	2	31	170	.....	31	170	...	361	51 2 0
CLASS II	...	...	...	...	Nil.	...	...	...	...	.....
TOTAL CLASS II	...	...	...	...	.....	...	...	...	...	.....
CLASS III	...	...	...	...	Nil.	...	...	...	...	.....
TOTAL CLASS III	...	...	...	...	.....	...	...	...	...	.....
TOTAL VILLAGE	33	2	31	170	.....	31	170	...	361	51 2 0
Total for year 1307 F. 140-9-0											

NOTE.—In column 6 shall be entered the areas with their produce—(a) Irrigated from new wells, (b) Irrigated from Tanks by lift.

NOTE.—In column 6 shall be entered the areas with their produce—(a) Irrigated from new wells, (b) Irrigated from Tanks by lift.

APPENDIX XX—(B).
Tahsil Ajmer, Mauza Ansari, Circle Rajgarh, Kharif 1308 F.

Crop.	Antras.				Total produce on Bud areas in Maunds.	Remarks as to areas to be specially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard normal yields per acre.	Col. 7 multiplied by Col. 9 (Normal yields in the actual assessable area).	The Value of the V.L. (Class I. 3-8-0. Class II. 1-8-0. Class III. 0-8-0.)
	Sown.		Bud.				Area.	Produce.			
	2	3	4	5								7	8	9	10	11
1					5	6					
CLASS I.—Maize	31	155	...	.....	31	155	MDS. SRS. 8 20	MDS. SRS. 263 0	} 61 × 3-8-0 = 213 8 0
Cotton	29	188	...	.....	29	188	6 30	196 0	
Red pepper	1	4	...	.....	1	4	12 0	12 0	
TOTAL CLASS I	61	347	...	...	61	347	...	471 0	213 8 0
CLASS II	Nil.	...	...	...	Nil.	.....
TOTAL CLASS II
CLASS III.—Bajra	97	421	...	.....	97	421	3 0	291 0	} 139 × 0-8-0 = 69 8 0
Juar	17	59	...	.....	17	59	2 0	34 0	
Mung	9	17	...	.....	9	17	2 8	20 0	
Chanola	1	1	...	.....	1	1	1 20	1 20	
Til	15	45	...	.....	15	45	1 10	18 30	
TOTAL CLASS III	139	543	...	.....	139	543	...	365 0	69 8 0
TOTAL VILLAGE	200	890	...	.....	200	890	...	836 0	283 0 0
CLASS I.—Gujai	3	33	...	.....	3	33	13 0	39 0	} Rabi 1308 F. 72 × 3-8-0 = 252 0 0
Wheat	2	12	...	.....	2	12	10 20	21 0	
Barley	45	636	...	.....	45	636	11 20	518 0	
Gulchani	22	184	...	.....	22	184	10 0	220 0	
TOTAL CLASS I	72	865	...	.....	72	865	...	708 0	252 0 0
CLASS II.—Bejhar	35	228	...	.....	35	228	7 0	245 0	} 136 × 1-8-0 = 204 0 0
Gram	100	465	...	.....	100	465	3 30	375 0	
Carrots	1	2	...	.....	1	2	10 0	10 0	
TOTAL CLASS II	136	695	...	.....	136	695	...	630 0	204 0 0
CLASS III	Nil.	...	...	Nil.	...	.....
TOTAL CLASS III
TOTAL VILLAGE	208	1,560	...	.....	208	1,560	...	1,428 0	456 0 0
											Total for year 1308 F. 739-0-0

NOTE.—In column 6 shall be entered the areas with their produce—(a) irrigated from new wells, (b) irrigated from Tanks by lift.

NOTE.—In column 6 shall be entered the areas with their produce—(a) irrigated from new wells, (b) irrigated from Tanks by lift.

APPENDIX XX—(C).
Tahsil Ajmer, Mauza Anari, Circle Raigarh, Kharif 1313 Fasl.

Crop.	AREAS.			Total produce on Bud areas in Naunds.	Remarks as to areas to be specially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard normal yields per acre.	Col. 7 multiplied by Col. 9 (Normal yields in the actual assessable areas).	The Value of the Rabi.
	Sown.	Nabud.	Bud.			Area.	Produce.			
1	2	3	4	5	6	7	8	9	10	11
CLASS I.—Maize...	47	43	4	12	.....	4	12	Mds. 8 20	34	Rs. a. p.
Cotton	82	73	9	8	.....	9	8	6 30	61	14 × 3-8-0 = 49-0-0
Red pepper	1	...	1	5	.....	1	5	12 0	12	$\frac{2}{16}$ of 49-0-0 = 11-8-0
TOTAL CLASS I	130	116	14	25	.....	14	25	...	107	11-8-0
CLASS II	...	Nil	...	...	.....	...	...	...	...	.....
TOTAL CLASS II	...	...	...	...	.....	...	...	...	...	.....
CLASS III.—Til ...	17	17	Nil.	...	.....	Nil.	Nil.	...	...	.....
Juar	38	38	...	...	.....	...	...	...	...	.....
Bajra	67	67	...	...	.....	...	...	...	...	.....
Kulath	10	10	...	...	.....	...	...	...	...	.....
Moth	3	3	...	...	.....	...	...	...	...	.....
Mung	3	3	...	...	.....	...	...	...	...	.....
TOTAL CLASS III	138	138	...	...	.....	...	...	...	...	.....
TOTAL VILLAGE	268	254	14	25	.....	14	25	...	107	11-8-0
CLASS I.—Barley	2	...	2	36	.....	2	36	11 20	23	Rabi 1313 Fasl.
Gujai	13	...	13	132	.....	13	132	13 0	169	18 × 3-8-0 = 63-0-0
Methi	2	1	1	8	.....	1	8	5 0	5	$\frac{1}{216}$ of 63-0-0 = 51-5-0
Onions	1	...	1	4	.....	1	4	10 0	10	
Zira ...	1	...	1	1	.....	1	1	3 0	3	
TOTAL CLASS I	19	1	18	181	.....	18	181	...	210	54-5-0
CLASS II.—Gram	16	4	12	39	.....	12	39	3 30	45	
Barley and Gram	5	...	5	15	.....	5	15	7 0	35	19 × 1-8-0 = 28-8-0
Bejhar ...	1	...	1	3	.....	1	3	7 0	7	$\frac{4}{9}$ of 28-8-0 = 19-15-0
Carrots ...	1	...	1	11	.....	1	11	10 0	10	
TOTAL CLASS II	23	4	19	68	.....	19	68	...	97	19-15-0
CLASS III	...	...	Nil.	...	.....	...	Nil.	...	...	.....
TOTAL CLASS III	...	...	...	...	.....	...	...	...	...	.....
TOTAL VILLAGE	42	5	37	219	.....	37	219	...	307	74-1-0
Total for year 1313 Fasl										85-12-0

NOTE.—In Column 6 shall be entered the areas with their produce—(a) irrigated from new wells, (b) irrigated from Tanks by lift.

APPENDIX XX—(D).

Tahsil Ajmer, Mauza Ansari, Circle Rajgarh, Kharif 1907 Fusti.

Crop.	AREAS.			Total produce on Bud areas in mounds.	Remarks as to areas to be specially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard normal yields per acre.	Cul. 7 multiplied by Col. 9 (normal yields in the assessable areas).	TUB VIL. LARGE RATES	Class I. 3-8-0 " II. 1-8-0 " III. 0-8-0
	Sown.	Nabul.	Bud.			Area.	Produce.				
1	2	3	4	5	6	7	8	9	10		11
CLASS I.—Maizo	50	660	.....	50	660	Mds. 8 20	425		Rs. A. P.
Cotton	26	364	.....	26	364	6 30	176		
Red pepper	3	26	.....	3	26	12 0	36		97 x 3-8-0 = 339 8 0
Bajra	17	239	.....	17	239	10 0	170		
Jowar	1	8	.....	1	8	9 0	9		
TOTAL CLASS I	97	1,297	.....	97	1,297	...	816		339 8 0
CLASS II.—Carrots	1	9/10	.....	1	9/40	10 0	10		1 x 1-8-0 = 1 8 0
TOTAL CLASS II	1	9/10	.....	1	9/40	...	10		1 8 0
CLASS III.—Bajra	145	1,020	.....	145	1,020	3 0	435		
Jowar	15	123	.....	15	123	2 0	30		
Mung	8	14	.....	8	14	2 8	18		189 x 0-8-0 = 94 8 0
Til	21	95	.....	21	95	1 10	26		
TOTAL CLASS III	189	1,252	.....	189	1,252	...	509		94 8 0
Total Village	287	2,519	.....	287	2,519	...	1,335		435 8 0
CLASS I.—Gujri	37	620	.....	37	620	13 0	481		Rabi 1314 F.
Wheat	3	50	.....	3	50	10 20	32		
Barley	12	145	.....	12	145	11 20	138		
Methi	1	6	.....	1	6	5 0	5		54 x 3-8-0 = 189 0 0
Zira	1	1	.....	1	1	3 0	3		
TOTAL CLASS I	54	822	.....	54	822	...	659		189 0 0
CLASS II.—Bejhar	60	490	.....	60	490	7 0	420		
Gram	116	524	.....	116	524	3 30	435		176 x 1-8-0 = 264 0 0
TOTAL CLASS II	176	1,014	.....	176	1,014	...	855		264 0 0
CLASS III.—
TOTAL CLASS III
Total Village	230	1,836	.....	230	1,836	...	1,514		453 0 0
Total for year 1314 F. 888-8-0.											

NOTE.—In Column 6 shall be entered the areas with their produce—(a) irrigated from new wells, (b) irrigated from Tanks by lift.

Crop.	Areas.			Total produce on Bud areas in Maunds.	Remarks as to areas to be specially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard normal yields per acre.	Col. 7 multiplied by Col. 9 (Normal yields in the actual assessable areas).	The VI. LAKE RATE. { Class I. 1.8-0. Class II. 1.8-0. Class III. 0.8-0.
	Sown.	Nabud.	Bud.			Area.	Produce.			
1	2	3	4	5	6	7	8	9	10	11
CLASS I.—Maize	67	34	33	87	...	33	87	Mds. Srs.	Mds. Srs.	Rs. A. P.
Cotton	69	33	36	99	...	36	99	8 20	280 0	70 × 2.13 = 197 0 0
Red pepper	1	..	1	2	...	1	2	6 30	243 0	188 of 197 = 69 4 0
TOTAL CLASS I	137	67	70	188	.....	70	188	12 0	12 0	69 4 0
CLASS II	...	...	Nil.	..	...	...	...	Nil.	.....
TOTAL CLASS II	...	...	...	...	...	...	...	...	.....
CLASS III.—Til	78	77	1	1	.....	1	1	1 10	1 1/4	1 × 0.6-0 = 0 6 6
Jowar	51	51	...	...	.....	...	...	...	.....	5 of 0.6-0 = 0 6 6
Chanoula	2	2	...	...	.....	...	...	...	.....
Mung	1	1	...	...	.....	...	...	...	.....
Kulath	2	2	...	...	.....	...	...	...	.....
Bajra	191	191	...	...	.....	...	...	...	.....
TOTAL CLASS III	328	327	1	1	.....	1	1	...	1 1/4	0 6 6
TOTAL VILLAGE	465	391	71	189	.....	71	189	...	536 1/4	69 10 6
CLASS I.—Wheat	1	...	1	1	.....	1	1	10 20	10-20	Rabi 1307 F.
Barley	29	...	29	143	.....	29	148	11 20	333-20	32 × 2 = 13-0 = 90 0 0
Onions	1	...	1	1	.....	1	1	10 0	10-0	10 of 90-0 = 38 0 0
Methi	2	1	1	1	.....	1	1	5 0	5-0	
TOTAL CLASS I	33	1	32	151	.....	32	151	...	359-	38 0 0
CLASS II.—Gram	3	...	3	6	.....	3	6	3 30	11-10	1 × 1.1-6 = 4 6 0
Carrots	1	...	1	4	.....	1	4	10 0	10-0	10 of 1-6-0 = 2 1 0
TOTAL CLASS II	4	...	4	10	.....	4	10	...	21-0	2 1 0
CLASS III	...	...	Nil.	...	.....	...	...	Nil.	.....
TOTAL CLASS III	...	...	...	...	.....	...	...	...	.....
TOTAL VILLAGE	37	1	36	161	.....	36	161	...	380-	40 1 0

Total for year 1307 F. 109-11-0.

Note.—In Column 6 shall be entered the areas with their produce—(a) irrigated from new wells, (b) irrigated from Tanks by lift.

APPENDIX XX—(F).

Mauza Bhimpura, Circle Raigarh, Khariif 1308 Fasli.

Tahsil Ajmer,

Circle Raigarh,

Khariif 1308 Fasli.

CROP.	AREAS.			Total produce on Bud areas in Maunds.	Remarks as to areas to be specially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard normal yields per acre.	Col. 7 multiplied by Col. 9 (Normal yields in the actual assessable areas).	LARGE RATES. (Class I. 2-13-0 " II. 1-1-6 " III. 0-6-6)
	Sown.	Nabud.	Bud.			Area.	Produce.			
1	2	3	4	5	6	7	8	9	10	11
Class I.—Maize	62	326	.....	62	326	Mds. 8 20	527	} 101 × 2-13-0 = 284 0 0
Cotton	38	218	.....	38	218	6 30	257	
Red pepper	1	2	.....	1	2	12 0	13	
TOTAL CLASS I	101	546	.....	101	546	...	796	284 0 0
Class II.—	Nil	.....	...	Nil	Nil	...	...
TOTAL CLASS II	Nil	.....	...	Nil	Nil	...	...
Class III.—Bajra	105	437	.....	105	437	3 0	315	} 211 × 0-6-6 = 86 0 0
Jowar	18	67	.....	18	67	2 0	36	
Mung	2	10	.....	2	10	2 8	4	
Til	84	242	.....	84	242	1 10	105	
Kulath	1	1	.....	1	1	1 20	3	
Chanola	1	3	.....	1	3	1 20	...	...
TOTAL CLASS III	211	760	.....	211	760	...	463	86 0 0
TOTAL VILLAGE	312	1,306	.....	312	1,306	...	1,259	370 0 0
Class I.—Guja	7	98	.....	7	98	13 0	91	} Rabi 1308 F. 83 × 2-13-0 = 233 7 0
Barley	67	949	.....	67	949	11 20	771	
Wheat	7	110	.....	7	110	10 20	74	
Tijara	2	2	.....	2	2	3 30	7	
TOTAL CLASS I	83	1,159	.....	83	1,159	...	943	233 7 0
Class II.—Bejhar	46	379	.....	46	379	7 0	322	} 242 × 1-1-6 = 264 11 0
Gram	196	1,096	.....	196	1,096	3 30	735	
TOTAL CLASS II	242	1,475	.....	242	1,475	...	1,057	264 11 0
Class III	Nil	.....	...	Nil	Nil	...	...
TOTAL CLASS III	Nil	.....	...	Nil	Nil	...	...
TOTAL VILLAGE	325	2,634	.....	325	2,634	...	2,000	498 2 0
Total for year 1308 F. 868-2-0										

NOTE.—In column 6 shall be entered the areas with their produce—(a) irrigated from now wells, (b) irrigated from Tanks by lift.

APPENDIX XX—(G).
Talsil Ajmer, Mauza Bhimpura, Circle Rajgarh, Kharif 1313 Fash.

Crop.	AREAS.			Total produce on Bud areas in munds.	Remarks as to areas to be specially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard normal yields per acre.	Col. 7 multiplied by Col. 9 (normal yields in the actual assessable areas).	The Village Rates	Class I, 2-13-0 " II, 1-1-0 " III, 0-0-0
	Sown.	Nabud.	Bud.			Area.	Produce.				
1	2	3	4	5	6	7	8	9	10		11
CLASS I.—Maize	62	57	5	10	.....	5	10	Mds. Srs.	Mds. Srs.	} $27 \times 2-13-0 = 76 \ 0 \ 0$ $\frac{77}{151} \text{ of } 76-0-0 = 30 \ 10 \ 0$	Rs. As. P. = 76 0 0 = 30 10 0
Cotton	78	56	22	67	.....	22	67	8 20 6 30	42 20 148 20		
TOTAL CLASS I	140	113	27	77	.....	27	77	...	191 0		30 10 0
CLASS II								Nil			
TOTAL CLASS II								Nil			
CLASS III.—Jowar	162	162						Nil			
Bajra	160	160						Nil			
Thi	21	21						Nil			
Chanaula	1	1						Nil			
Kulathi	8	8						Nil			
Moth	1	1						Nil			
TOTAL CLASS III	353	353	...	...	.....	...	...	...	...	.....
TOTAL VILLAGE	493	466	27	77	.....	27	77	...	191 0		30 10 0
CLASS I.—Barley...	26	...	26	201	.....	26	201	11 20	299 0	} $35 \times 2-13-0 = 98 \ 7 \ 0$ $\frac{77}{151} \text{ of } 98-7-0 = 65 \ 14 \ 0$	Rs. 1313 F. = 98 7 0 = 65 14 0
Methi...	1	...	1	2	.....	1	2	5 0	5 0		
Gujai ...	8	...	8	76	.....	8	70	13 0	104 0		
TOTAL CLASS I	35	...	35	273	.....	35	273	...	408 0		65 14 0
CLASS II.—Gram...	7	...	7	30	.....	7	30	3 30	26 0		7 11 0
TOTAL CLASS II	7	...	7	30	.....	7	30	...	26 0		7 11 0
CLASS III								Nil			
TOTAL CLASS III								Nil			
TOTAL VILLAGE	42	...	42	303	.....	42	303	...	434 0		73 9 0
Total for year 1313 F. = 104-3											

NOTE.—In column 6 shall be entered the areas with their produce—(a) irrigated from new wells, (b) irrigated from Tanks by lift.

APPENDIX XX—(H).
Tahsil Ajmer, Mauzu Bhainpura, Circle Rajgarh, Khairif 1314 F.

Crops.	AREAS.				Total produce on Bud areas in Maunds.	Remarks as to areas to be specially assessed.	ASSESSABLE AT ORDINARY RATES.		Standard normal yield per acre.	Col. 7 multiplied by Col. 9 (Normal yields in the actual assessable areas).	The VIL. LAKE RATES. (Class I. 2-13-0. Class II. 1-1-6. Class III. 0-6-6.)
	Sown.	Nabud.	Bud.	Produce.							
							Area.	Produce.			
1	2	3	4	5	6	7	8	9	10	11	
CLASS I.—Maize	60	386	.....	60	386	Mds. Srs.	Mds. Srs.	Rs. A. P.	
Cotton	47	424	.....	47	424	8 20	510 0	108 × 2-13-0 = 304 0 0	
Red pepper	1	5	.....	1	5	6 30	318 0		
TOTAL CLASS I	108	815	.....	108	815	12 0	12 0		
CLASS II.	Nil.					...	840 0	304 0 0	
TOTAL CLASS II	Nil.					Nil.			
CLASS III.—Bajra	243	750	.....	243	750	3 0	729 0	423 × 0-6-6 = 172 0 0	
Jowar	127	398	.....	127	398	2 0	254 0		
Mung	11	26	.....	11	26	2 8	24 8		
Til	37	61	.....	37	61	1 10	46 10		
Kulath	5	18	.....	5	18	1 20	7 20		
TOTAL CLASS III	423	1,256	.....	423	1,256	...	1,061 0	172 0 0	
TOTAL VILLAGE	531	2,071	.....	531	2,071	...	1,901 0	476 0 0	
CLASS I.—Wheat	7	78	.....	7	78	10 20	73 20	Rabi 1314 F. 68 × 2-13-0 = 191 4 0	
Gujar	19	298	.....	19	298	13 0	247 0		
Barley	40	574	.....	40	574	11 20	460 0		
Methi	1	5	.....	1	5	5 0	5 0		
Zira	1	1	.....	1	1	3 0	3 0		
TOTAL CLASS I	68	956	.....	68	956	...	789 0	191 4 0	
CLASS II.—Bejhar	59	384	.....	59	384	7 0	413 0	225 × 1-1-6 = 246 0 0	
Gram	166	524	.....	166	524	3 30	622 0		
TOTAL CLASS II	225	908	.....	225	908	...	1,035 0	246 0 0	
CLASS III.	Nil.					Nil.			
TOTAL CLASS III	Nil.					Nil.			
TOTAL VILLAGE	293	1,864	.....	293	1,864	...	1,824 0	437 4 0	
Total for year 1314 F, 913 4 0											

NOTE.—In column 6 shall be entered the areas with their produce—(a) irrigated from now wells, (b) irrigated from Tanks by lift.

NOTE.—In column 6 shall be entered the areas with their produce—(a) irrigated from now wells, (b) irrigated from Tanks by lift.

